### **ADDENDUM NO. 2**

### TO THE

### **DRAWINGS AND SPECIFICATIONS**

### **FOR THE**

### **Hopewell Phase 1 East Demolition Project**

**Issued From:** 

The City of Bloomington

**Engineering Department** 

Post Office Box 100

401 North Morton Street, Suite #130

Bloomington, Indiana 47402

Issue Date:

June 1st, 2022

**Letting Date:** 

June 6th, 2022

This Addendum No.2 to the drawings and specifications shall supplement, amend and become a part of the Bid documents, plans, and specifications for the Hopewell Phase 1 East Demolition Project. All bids and construction contracts shall be based on these modifications to the original contract documents. Bidders shall acknowledge receipt of this Addendum on the Bid Form. Failure to do so may subject the Bidder to disqualification.

### Item No. 1: Revised Plan Set

A revised plan set has been issued. The revised plan set is attached to the addendum.

### Item No. 2: Revised Soil Management Plan

A revised Soil Management Plan has been issued. The revised plan is attached to the addendum.

### **Item No. 3: Underground Storage Tank**

The underground storage tank at 640 S. Morton Street is scheduled to be removed by another contractor from June 13th, 2022, through June 17th, 2022.

### Item No. 4: Chain Link Fence

The 72" Chain Link Security Fence shall be Temporary Fencing.

e e	CERTIFIED BY:  ANDREW CIBOR  DIRECTOR OF ENGINEER  CITY OF BLOOMINGTON, IN

Acknowledge receipt of the addendum by representing it on the Bid Form in Section B and submitting a signed copy with your bid proposal.

RECEIVED BY:	CONTRACTOR (FIRM AND ADDRESS)	
SIGNATURE:		DATE:
PRINTED NAME:		
ΓITLE:		

March 31, 2022



Karen Valiquett, PE Senior Project Manager Shrewsberry & Associates, LLC 7321 Shadeland Station, Suite 160 Indianapolis, Indiana 46256

RE: SOIL MANAGEMENT PLAN

**BLOOMINGTON HOSPITAL REUSE PROJECT PHASE I EAST** 

**HOPEWELL PROJECT** 

**BLOOMINGTON, MONROE COUNTY, INDIANA** 

**METRIC FILE NO. 21-0098** 

Dear Ms. Valiquett:

Metric Environmental, LLC (Metric) developed a Soil Management Plan (SMP) for the Bloomington Hospital Reuse Project Phase I East (Hopewell) located northwest corner of South Morton Street and West 1st Street. The SMP was developed as a component of Reuse Planning, to outline guidance and requirements for contaminated soil handling and disposal needed for redevelopment of the property. Enclosed is a copy of the Soil Management Plan.

Should you have any questions or comments regarding our findings, please do not hesitate to contact us.

METRIC ENVIRONMENTAL, LLC

Pat Likins

Senior Project Manager

**Enclosures** 

# SOIL MANAGEMENT PLAN

# BLOOMINGTON HOSPITAL REUSE PROPERTY PHASE I EAST HOPEWELL PROJECT BLOOMINGTON, MONROE COUNTY, INDIANA

PREPARED FOR:

### **SHREWSBERRY & ASSOCIATES, LLC**

MARCH 31, 2022

### **Prepared by:**



**Complex Environment. Creative Solutions.** 

6958 Hillsdale Court Indianapolis, IN 46256 Telephone: 317.400.1633 www.metricenv.com

### SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

# SOIL MANAGEMENT PLAN BLOOMINGTON HOSPITAL REUSE PHASE I EAST PROPERTY HOPEWELL PROJECT BLOOMINGTON, MONROE COUNTY, INDIANA

This Soil Management Plan was prepared by Metric Environmental, LLC (Metric) for Shrewsberry & Associates, LLC (Shrewsberry).

Guid Ca	Marrah 20, 2022
QA/Technical Reviewer:	March 30, 2022 Date
Vince Epps	Date
Vice President/Senior Environmental Scientist	
Pat Likein	March 30, 2022
Project Manager:	Date
Pat Likins	
Assessment-Remediation Senior Project Manager	
	March 30, 2022
Prepared by:	Date
Joe Brodowski, LPG	
Assessment-Remediation Senior Project Manager	



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**Appendix A** – Definitions and Acronyms

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Exhibit 1 – Property Vicinity Map

Exhibit 2 – Parcel Depiction Layout

Exhibit 3 – Soil Boring Locations

Exhibit 4 – SMP Area



### 1.0 Introduction

Metric Environmental, LLC (Metric) has developed this Soil Management Plan (SMP) for the Hopewell Property located on the northwest corner of South Morton Street and West 1st Street in Bloomington, Monroe County, Indiana (the Site). A property vicinity map is included as Exhibit 1 in Appendix B. The properties included in the SMP are:

	Property Address	Parcel Number
В	605 S Madison, Bloomington, IN 47403	53-08-05-100-129.000-009
С	409 W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-08-05-100-081.000-009
D	407 W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-08-05-100-047.000-009
Е	313 W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-08-05-100-118.000-009
F	311 W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-08-04-200-182.000-009
G	303 W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-08-04-200-136.000-009
Н	301 W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-01-55-251-000.000-009
ı	411 W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-08-05-100-048.000-009
J	403 W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-08-05-100-053.000-009
K	401 W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-08-05-100-069.000-009
L	321 W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-08-05-100-052.000-009
М	W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-08-05-100-130.000-009
N	W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-01-56-030-000.000-009
0	635 S Rogers St., Bloomington, IN 47403	53-08-05-100-056.000-009
Р	407 W 2 <sup>nd</sup> St., Bloomington, IN 47403	53-08-05-100-128.000-009
Q	640 S Morton St., Bloomington, IN 47403	53-08-05-100-113.000-009
R	400 W 1 <sup>st</sup> St., Bloomington, IN 47403	53-08-05-100-017.000-009
S	410 W 1 <sup>st</sup> St., Bloomington, IN 47403	53-08-05-100-094.000-009
Т	653 S Rogers St., Bloomington IN 47403	53-08-05-100-034.000-009

Proposed redevelopment plans include a mixture of "greenspace" and commercial development.

Two on-site subsurface investigations were conducted, and contaminant exposure pathways were identified. The results of the investigations will require the establishment of Environmental Restrictive Covenants (ERCs) for the properties following rezoning of the property parcels.



### 2.0 BACKGROUND

The properties associated with this SMP encompass approximately 7.26 acres of the northwest corner of the West 1<sup>st</sup> Street and S Morton Street intersection properties (the SMP Area). A map showing the associated properties/parcels is included as Exhibit 2 in Appendix B. A map showing the SMP Area is included as Exhibit 4 in Appendix B.

The Properties along W 2<sup>nd</sup> Street at the north perimeter of the SMP Area are historically residential. Parcel L, 411 W 2<sup>nd</sup> Street, is currently commercial office space.

The eastern portion of the SMP Area (605 S Madison, 640 S Morton and W. 2<sup>nd</sup> Street Parcel No. 53-01-56-030-000.000-009) was utilized as bulk oil facilities and an auto repair shop between 1927 and 1976. The central portion of the SMP Area, 635 S Rogers, was utilized as automotive repair, painting, and other maintenance-related work.

The Property at 630 S Morton Street (formerly 605 S Madison Street) was historically the location of various oil companies from circa 1960 until circa 1969. Since circa 1974 the Property has had one occupant (JC Dotson) circa 2000 to circa 2004. The Property has had no listing since 2010. The Property building currently is used for storage of paper records.

The Property at 400 W 1<sup>st</sup> Street includes three addresses: 320, 324, and 400 W. 1st Street. The portion of the Property identified as 320 W. 1st Street was used as residential housing from 1922 until circa 1990. The portion of the Property identified as 324 W. 1st Street, has had a variety of uses including residential (1913 – 1964). In the late 1960s it was an Apostolic Temple and in the 1970s it was used as a Martial Arts Center. The portion identified as 400 W 1st Street, was used as residential from 1916 until circa 1917. The Property was the site of a machine shop from circa 1929 until circa 1946. A day care occupied the site in 1969. The Property is currently a parking lot.

The central portion of the SMP Area, Property at 635 S Rogers, and 407 W 2nd Street, was reported in the 2018 August Mack Phase I as having been developed with the Indiana University Hospital Services Building and Carpenter Shop. It has been used as a maintenance/automotive repair shop since at least 1963. The August Mack Phase I reported a drain in the ambulance service area previously discharged to a dry well in the current parking area north of the building, which was subsequently filled, the area of the dry well was reportedly excavated, however; no excavation records of confirmatory sampling was available for review. The Property was owned and operated circa 1927 by Indiana Lime Stone Bowman Mill, and circa 1947 the Public School Service Building.

The Property at 653 S Rogers Street was 416 W 1st Street. Current tax records indicate the property now shares the address of 653 S Rogers with the adjoining west property. The Property was the location of various Bloomington Hospital facilities. The Property has been used as residential housing since at least 1945.



The following reports are available which document the results of investigations performed at or in the vicinity of the Site:

- Phase II Subsurface Investigation Indiana University Health Bloomington Hospital Campus (2019 Phase II SI), dated May 28, 2019, prepared by August Mack Environmental (Project Number JS1901.740) (VFC# 83312739)
- Phase I Environmental Site Assessment, Indiana University Health Bloomington Hospital Campus, Parcels A, B, C, & D, Bloomington, Indiana, – prepared by August Mack September 28, 2018 (VFC# 83312742)
- Phase I Environmental Site Assessment Report 653 S Rogers Street (2021 Phase I ESA), dated November 12, 2021, prepared by Metric Environmental, LLC (Metric) (Project Number #21-0098) (VFC# 83312746)
- Phase I Environmental Site Assessment Report 630 S Morton Street (2021 Phase I ESA), dated July 16, 2021, prepared by Metric Environmental, LLC (Metric) (Project Number #21-0098) (VFC# 83312748)
- Phase I Environmental Site Assessment Report 400 W 1<sup>st</sup> Street (2021 Phase I ESA), dated July 16, 2021, prepared by Metric Environmental, LLC (Metric) (Project Number #21-0098) (VFC# 83312752)
- Phase II Limited Subsurface Investigation (2021 Phase II LSI), dated November 22, 2021, prepared by Metric Environmental, LLC (Metric) (Project Number #21-0098) (VFC# 83312755)



### 3.0 SUMMARY OF INVESTIGATION AND REMOVAL ACTIONS

### **2019 Phase II Subsurface Investigation**

During September and November 2018, August Mack performed a Phase II SI at the Bloomington Hospital Reuse Project Phase I East site. Soil borings SB-5 through SB-22 and SB-25 through SB-30 were advanced across the northern and eastern portions of the SMP project site. Soil boring locations are depicted on Exhibit 3 in Appendix B. The results of the investigation identified the following:

### Soils

### Arsenic:

- Concentrations detected in samples SB-10 (10-12), SB-14 (4-6), and SB-21 (2-4), exceeded the RCG Migration to Groundwater (MTG) SL
- Concentrations detected in samples SB-10 (10-12) exceeded the Residential Direct Contact (RDC) SL.

### VOCs:

- The concentration of benzene detected in samples SB-20 (2-4), SB-25 (2-4), SB-26 (2-4), SB-27 (2-4 and 6-7), and SB-28 (2-4 and 6-8) exceeded the RCG MTG SL.
- The concentrations of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzne detected in sample SB-20 (2-4) exceeded the RCG MTG SL.
- The concentration of n-propylbenzene in sample SB-25 (2-4) and SB-27 (2-4) exceeded the RCG MTG SL.

### PAHs:

The concentrations of naphthalene, 1-methylnaphthalene, and/or 2-methylnaphthalene were detected in samples SB-5 (2-4), SB-20 (2-4), SB-25 (2-4), SB-26 (2-4), SB-27 (2-4 and 6-7), SB-28 (2-4 and 6-8), SB-29 (2-4), and SB-30 (4-6) exceeded the RCG MTG SL.

### 2021 Phase II Limited Subsurface Investigation

On October 18<sup>th</sup> and 19<sup>th</sup>, 2021, Metric performed a Phase II LSI at the Bloomington Hospital Reuse Project Phase I East site located at 630 S Morton, 653 S Rogers and 400 W 1<sup>st</sup> Street, Bloomington, Monroe County, Indiana (the Site). Seven (7) soil borings were advanced at the Site and soil samples were collected, which were analyzed for BTEX/MTBE, PAHs, and RCRA 8 Metals. The boring locations are depicted in Exhibit 3 – Soil Boring Locations, located in Appendix B.



### Soils

### • Arsenic:

Concentrations detected in samples BL-SB-01 (3-5), BL-SB-02 (9-10), BL-SB-03 (9-10), and BL-SB-06 (5-7) exceed the RCG Migration to Groundwater (MTG) SL

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- Concentrations detected in samples BL-SB-01 (7-9), BL-SB-03 (3-5), BL-SB-04 (8-10), BL-SB-04 (14-15), BL-SB-06 (9-10), and BL-SB-07 (4-6) exceed only the RCG MTG and Residential Default Closure (RDC) SLs; and BL-SB-07 (4-6) exceed the RCG MTG and Residential Direct Contact (RDC) SLs.
- Concentrations detected in samples BL-SB-05(8-10), BL-SB-05 (14-15), and BL-SB-07 (8-9) exceed the RCG MTG, RDC, and Commercial/Industrial Direct Contact (CDC) SLs but do not exceed the Excavation Direct Contact (EDC) SL.

### Cadmium:

The concentration detected in sample BL-SB-01 (3-5) exceeds the RCG MTG SL.

### PAHs:

- The concentration of 1-methylnaphthalene detected in sample BL-SB-01 (7-9) exceeds the RCG MTG SL (1.2 mg/kg).
- The concentration of naphthalene detected in sample BL-SB-01 (7-9) exceeds the RCG MTG SL (0.11 mg/kg).



### 4.0 EXTENT OF SOIL IMPACTS

The Contaminant of Concern is Arsenic in soil because only arsenic has been detected above RCG direct contact screening levels at the Site. The potential exposure pathway is direct contact with soil by residents, commercial/industrial workers, and excavation workers. Soil direct contact occurs via one or more of the following absorption routes:

- Absorbing chemicals through the skin when touching soil
- Inhaling vapors while in direct contact with potentially contaminated soil
- Inhaling potentially contaminated soil particles (e.g., dust)
- Ingesting potentially contaminated soil

Potential receptors include people who live in the area and construction workers.



### 5.0 SOIL MANAGEMENT

Soils contaminated with arsenic have been identified in the SMP Area. The arsenic detections are identified in Exhibit 3, located in Appendix B.

Because future development could occur in the SMP Area, IDEM requires that all activities be performed in accordance with applicable federal, state, and local laws and regulations.

### 5.1 Dust Control

Contractor shall prepare a Dust Control Plan in accordance with the Specifications provide by the City of Bloomington. The contractor shall take the following measures to ensure that dust is not created during excavation and handling of contaminated soils.

Dust and odor control monitoring and suppression, if necessary, should be in place during all soil excavation activities. Dust and odor suppression controls may include:

- Reduction of on-site vehicle speeds
- Minimizing drop heights to material haulers from soil loaders
- Considering timing of excavation activities and prevalent wind direction(s) and speed
- Use of odor suppressants like BioSolve®, if necessary
- Regular watering of haul roads and soil stockpiles, if necessary
- Revegetating/stabilizing/covering exposed excavations as soon as practicable

### 5.2 Erosion Control

A Stormwater and Erosion Control Plan will be developed in compliance with applicable federal, state and local regulations (e.g. NDPES permitting, the IDEM Construction Stormwater General Permit (CSGP), formerly "Rule 5", and Chapter 600 Erosion and Sediment Control) prior to initiation of site work.

Excavated soil shall be managed in a way that will not cause sediment to enter storm water runoff. Excavated soil that is suspected or known to be contaminated shall be placed in sealed containers or stockpiled and covered. Best management practices shall be applied to any excavation or construction work in the SMP Area.

### 5.3 Reuse or Disposal of Excavated Soil

All disturbed soil from the SMP Area will be sampled and disposed offsite. Once excavation activities are completed, confirmatory soil samples will be collected for analysis of arsenic to determine that remaining soil concentrations are below applicable and respective RCG screening levels. It will be the responsibility of the Contractor to develop a Soil Sampling Plan. Sampling results should be reviewed, and soils must be disposed of in an appropriate solid waste landfill



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unless sampling results indicate the soils may be used in an unrestricted way in accordance with the IDEM non rule policy document *Uncontaminated Soil Policy* (Waste 0064).

If soil from within the SMP Area is determined to be hazardous and requires offsite disposal, it must be treated to RCRA Universal Treatment Standards prior to disposal in a RCRA Subtitle C landfill.



### 6.0 Relevant Soil Management Concentration Trigger Levels

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Table 2 below lists the levels of Arsenic detected in 2019 and 2021 and the relevant IDEM RCG Screening Levels – Direct Contact.

TABLE 2 - Bloomington Hospital Reuse Phase I East 2021 Soil Concentrations Exceeding Applicable IDEM RCG Screening Levels

	Sample	Contaminant Detected and Concentration (parts per million (ppm))
ID	Depth (feet bgs)	Arsenic
SB-10 *	10-12	13.4
BL-SB-01	7-9	15.5
BL-SB-03	3-5	11.9
8-10		26.3
BL-SB-04	14-15	27.3
8-10		50.5
BL-SB-05	14-15	31.3
BL-SB-06	9-10	27.8
DL CD O7	4-6	17.3
BL-SB-07	8-9	52.4
Calc	ulated Average	27.4
	RDCSL	9.5
C	DCSL/IDCSL	30
	EX DCSL	920

Notes: \* August Mack 2019 – all remaining results Metric 2021

**bold** = above RCG Residential Direct Contact Screening Level

*italics*= above RCG Commercial/Industrial Direct Contact Screening Level <u>underline</u>= above RCG Excavation Worker Direct Contact Screening Level

bgs = below ground surface

IDCSL = Industrial Direct Contact Screening Level

EX DCSL = Excavation Direct Contact Screening Level

In addition, the IDEM RCG established the Soil Migration to Groundwater (MTG) Screening Level. The IDEM non-rule policy document (NPD) titled *Uncontaminated Soil Policy* (Waste-0064, effective April 10, 2015), aids in determining when soil containing detectable levels of human introduced chemicals is considered 'uncontaminated'. The lower of the two residential screening levels in RCG Table A-6; the "Migration to Groundwater" (MTG) and the RDCSLs must be used. Soils with concentrations of human introduced chemicals exceeding RCG residential screening levels are considered contaminated and should be disposed in a permitted RCRA



Subtitle D landfill. The MTG SLs are as follows:

Metal	MTG SL
Arsenic	5.9 ppm

For the purpose of land disposal, if total analysis results are equal to more than 20 times the TCLP limits as listed below, the waste may be a hazardous waste and should be assumed as such until further testing, using the TCLP analysis, confirms the waste's toxicity characteristic results.

Metal	TCLP Limit	20 x TCLP Limit
Arsenic	5.0 mg/L	100 mg/L



### 7.0 SAMPLING PROCEDURES

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Sampling and analysis should be performed to ensure that samples are collected in conformance with EPA data-quality requirements and meet the needs of the waste disposal facility in the case of off-site disposal.

Any sampling conducted in association with soil management at the Site should be conducted in accordance with the *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods* (SW-846), by qualified personnel who are appropriately trained and medically monitored under the Hazardous Waste Operations and Emergency Response Standard (HAZWOPER). All samples should be collected and transported under chain of custody to a National Environmental Laboratory Accreditation Program (NELAP) certified accredited laboratory for analysis. Samples should be analyzed for arsenic. Laboratory reporting limits should be less than appropriate regulatory screening values as described in **Section 6.0**.



### 8.0 NOTIFICATION AND REPORTING

IDEM should be notified if any activities undertaken under this SMP result in a new release or encounter a previously unknown release. To report such a release, call IDEM's 24-Hour Emergency Spill Line toll free at (888) 233-7745 or (317) 233-7745.



### 9.0 REFERENCES

Indiana Department of Environmental Management (IDEM) (2015). *Uncontaminated Soil Policy* (Waste-0064). Indianapolis, IN

Indiana Department of Environmental Management (IDEM) (2021 as amended). *Remediation Closure Guide* (Waste-0046-R1). Indianapolis, IN



**APPENDIX A - DEFINITIONS AND ACRONYMS** 



### **DEFINITIONS**

<u>Activity and Use Limitations</u> – legal or physical restrictions or limitations on the use of, or access to, a site or facility: 1) to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil or groundwater on the Property or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment.

<u>Actual Knowledge</u> – the knowledge actually possessed by an individual who is a real person, rather than an entity.

<u>Adjoining Properties</u> – any real property or properties the border of which is contiguous or partially contiguous with that of the Property, or that would be contiguous or partially contiguous with that of the Property but for a street, road, etc.

<u>All Appropriate Inquiry</u> – inquiry constituting "all appropriate inquiry into the previous ownership and uses of the Property consistent with good commercial or customary practice" as defined in CERCLA, 42 USC 9601(35)(B).

<u>Contaminant</u>: any solid, semisolid, liquid, or gaseous matter, or any odor, radioactive material, pollutant as defined in the Federal Waste Pollution Control Act, hazardous waste as defined by the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.), as amended, or any combination thereof, from whatever source, that: (A) is injurious to human health, plant or animal life, or Property; (B) interferes unreasonably with the enjoyment of life or Property; or (C) is otherwise volatile of this article or rules adopted under this article.

<u>De minimis condition</u> – A condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

<u>Engineering Controls (EC)</u> – physical modifications to a site or facility (for example, capping, slurry walls, or point of use water treatment) to reduce or eliminate the potential for exposure to hazardous substances or petroleum products in the soil or ground water on the Property.

<u>Environmental Lien</u> – a charge, security, or encumbrance upon title to a Property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a Property.

<u>Environmental Professional</u> – a person meeting the education, training, and experience requirements set forth in 40 CFR 312.10(b). The person may be an independent contractor or an employee of the User.

<u>Free Product</u>: the separate phase material present in concentrations greater than a contaminant's residual saturation point.

<u>Fill Dirt/Material</u> – dirt, soil, and, other earth, or material, that is obtained off-site, that is used to fill holes or depressions, create mounds, raise the grade, etc. (does not include limited quantities used for landscaping purposes)

<u>Geophysical techniques</u>: tests (including magnetometer surveys, ground penetrating radar, electrical resistively, and seismic refraction) used to locate buried metallic objects, such as USTs, and to map groundwater pathways.



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<u>Groundwater:</u> subsurface water in a zone of saturation, which can be brought to the surface of the ground or surface waters, through wells, springs, seepage, or other discharge areas. A zone of saturation is where the voids and pore spaces in the rock, soil or geological materials are filled with water.

<u>Hazardous substance</u>: a substance defined as a hazardous substance pursuant to CERCLA 42 U.S.C.§9601(13), as interpreted by EPA regulations and the courts: "A) any substance designated pursuant to section 1231(B)(2)(A) of Title 33, B) any element, compounds, mixture, solution, or substance designated pursuant to section 9602 of this title, C) any *hazardous waste* having the characteristics identified under or listed pursuant to section 3001 of RCRA (1972) as amended, D) any toxic pollutant listed under section 1317(a) of Title 33, E) any hazardous air pollutant listed under section 112 of the Clean Air Act, and F), any imminently hazardous chemical substance or mixture with respect to which the EPA has taken action pursuant to section 2606 of Title 15. The term does not include petroleum products, natural gas, etc.

<u>Institutional Controls (IC)</u> — a legal or administrative restriction (for example, "deed restrictions," restrictive covenants, easements, or zoning) on the use of, or access to, a site or facility to 1) reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil or groundwater on the Property or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment.

<u>Obvious</u> – that which is plain or evident; a condition or fact that could not be ignored or overlooked by a reasonable observer while visually or physically observing the Property.

Owner – generally the fee owner of record of the Property.

<u>Petroleum</u>: petroleum asphalt and crude oil or any part of petroleum asphalt or crude oil that is liquid at standard conditions of temperature and pressure [sixty (60) degrees Fahrenheit] and fourteen and seventenths (14.7) pounds per square inch absolute.

<u>Property</u> – the real Property that is the subject of the environmental site assessment. Real Property includes buildings and other fixtures and improvements located on the Property and affixed to the land.

<u>Reasonably Ascertainable</u> – information that is (1) publicly available, (2) obtainable from its source within reasonable time and cost constraints, and (3) practically reviewable

<u>Recorded Land Title Records</u> – records of historical fee ownership, which may include leases, land contracts, and AULs on or of the Property.

<u>Release</u>: defined by federal and most state laws as any spilling, leaking, pouring, dumping, emitting, discharging, injecting, escaping, leaching, or disposing of hazardous substances or petroleum products into structures, or onto the ground, ground water, or surface water of a Property.

<u>Sump</u>: a pit, cistern, cesspool, or similar receptacle where liquids drain, collect, or are stored.

<u>User</u> – the party seeking to use Practice E 1527 to complete an environmental site assessment of the Property.

<u>Vapor Encroachment Condition</u> – the presence or likely presence of chemicals of concern vapors in the sub-surface of the Property caused by the release of vapors from contaminate soil or groundwater either on or near the Property.

<u>Wetlands</u>: those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of



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vegetation typically adapted to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.



### **ACRONYMS**

AAI	All Appropriate Inquiry	DRO	Diesel Range Organics
ACM	Asbestos-Containing Material	EC	Engineering Control
AHERA	Asbestos Hazard Emergency	EDC	Excavation Direct Contact
	Response Act of 1986, 40 CFR 763	EPA	United States Environmental
AMSD	Approximate Minimum Search		Protection Agency
	Distances	EPCRA	(Federal) Emergency Planning and
AST	Aboveground Storage Tank		Community Right-to-Know Act of
ASTM	American Society for Testing and Materials		1986, (aka Title III of SARA),42 USC §11001-11050
ATSDR	Agency for Toxic Substances and	ERC	Environmental Restrictive Covenant
	Disease Registry	ERIS	Environmental Risk Inventory
AUL	Activity Use Limitation		System
BDL	Below detection limit	ERNS	Emergency Response Notification
BGS	Below grade surface	500	System
BTEX	Benzene, Toluene, Ethylbenzene,	ERO	Extended Range Organics
	and Total Xylenes	ESA	Environmental Site Assessment
CAA	Clean Air Act (42 USC §7412)	FID	Flame ionization detector
CAP	Corrective Action Plan	FINDS	Facility Index System
CAPR	Corrective Action Progress Report	FOIA	Freedom of Information Act (5 USC §552 as amended)
CERCLA	Comprehensive Environmental Response, Compensation and	FR	Federal Register
	Liability Act of 1980 (as amended,	GRO	Gasoline Range Organics
	42 USC §9601)	HCS	(OSHA) Hazard Communication
CERCLIS	Comprehensive Environmental		Standard
	Response, Compensation and	HREC	Historical Recognized
	Liability Information System		Environmental Condition
CESQG	Conditionally Exempt Small Quantity Generator	HRS	Hazard Ranking System, 29 CFR 300 App. A
CFR	Code of Federal Regulations	IBP	Indiana Brownfields Program
COC	Chemical of Concern	ICs	Institutional Controls
CREC	Controlled Recognized	IDEM	Indiana Department of
	Environmental Condition		Environmental Management
CWA	Clean Water Act	IGS	Indiana Geological Survey
DNAPL	Dense non-aqueous phase liquid	INDR	Indiana Department of Natural
DNR	(Indiana) Department of Natural		Resources
D.O.T.	Resources	LLPs	Landowner Liability Protections
DOT	Department of Transportation	LNIAD	under the Brownfields Amendment
DPW	(Indianapolis) Department of Public Works	LNAPL	Light non-aqueous phase liquid
	AAOLV2	LQG	Large Quantity Generator



LSI	Limited Subsurface Investigation	RI/FS	Remedial Investigation & Feasibility
LUST	Leaking Underground Storage Tank	, -	Study
MCL	Maximum Contaminant Levels (as defined by EPA under the SDWA)	RPTA	(Indiana) Responsible Property Transfer Act (1990)
MSDSs	Material Safety Data Sheets	RQ	Reportable Quantity
MTBE	Methyl-tertiary-butyl-ether	SAP	Sampling and Analysis Plan
MTG	Migration to Groundwater	SARA	(Federal) Superfund Amendment and Reauthorization Act
NFA	No Further Action	SBOH	(Indiana) State Board of Health
NFRAP	No Further Remedial Action Planned	SCP	State Cleanup Program
NEDA		SDWA	Safe Drinking Water Act
NEPA	National Environmental Policy Act National Emissions Standards for	SIC	Standard Industrial Classification
NESHAPS	Hazardous Air Pollutants	SPCC	Spill Prevention Control and
NPL	National Priorities List	3. 33	Countermeasure
O&M:	Operations and Maintenance	SPLP	Synthetic Precipitation Leaching Procedure
OSHA	Occupational Health & Safety Administration	SQG	Small Quantity Generator
PACM	Presumed Asbestos Containing	SVOC	Semi-volatile organic compounds
1710111	Material	SWMU	Solid Waste Management Unit
PAH	Polycyclic aromatic hydrocarbons	SWPPP	Storm Water Pollution Prevention
PCBs	Polychlorinated Biphenyls		Plan
PCE	Perchloroethylene (Tetrachloroethylene)	TCLP	Toxicity Characteristic Leaching Procedure
PEL	Permissible exposure limit	TPH	Total Petroleum Hydrocarbons
PID	Photoionization detector	TSCA	(Federal) Toxic Substance Control
PPB	Parts per billion		Act
PPM	Parts per million	TSD	Treatment, Storage and Disposal
PRP	Potentially Responsible Party	TMCI	(facilities)
QA/QC	Quality Assurance/Quality Control	TWSL	Tap Water Screening Level
RACM	Regulated Asbestos Containing Material	USDA	United States Department of Agriculture
RCG	Remediation Closure Guide	USC	United States Code
	nemediation dissure durac	US EPA	United States Environmental Protection Agency
RCRA	Resource Conservation and	USGS	United States Geological Survey
	Recovery Act (42 USC §6901)	UST	Underground Storage Tank
		VEC	Vapor Encroachment Condition



VES Vapor Encroachment Screening

VI Vapor Intrusion

VIGWSL Vapor Intrusion Groundwater

Screening Level

VFC Virtual File Cabinet

VOC Volatile organic compounds

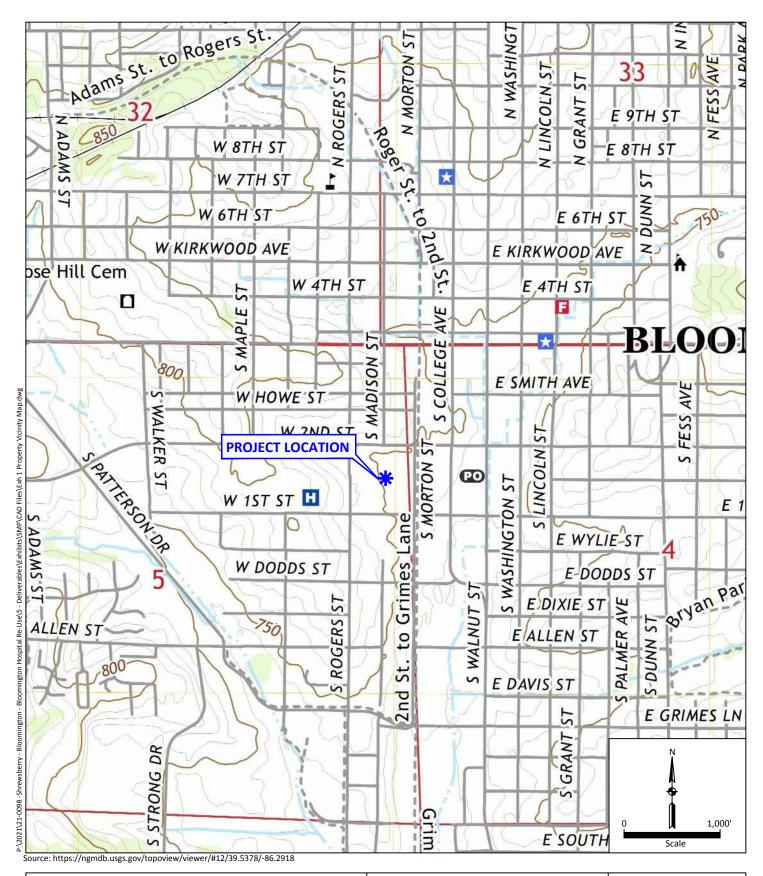
VRP Voluntary Remediation Program



### **APPENDIX B - EXHIBITS**

Exhibit 1 – Property Vicinity Map
Exhibit 2 – Parcel Depiction Layout
Exhibit 3 – Soil Boring Locations
Exhibit 4 – SMP Area





### **Exhibit 1 - Property Vicinity Map**

Soil Management Plan 630 S. Morton Street, 653 S. Rogers Street and 411 W. 1<sup>st</sup> Street Bloomington, Monroe County, Indiana Metric Project # 21-0098 All locations approximate

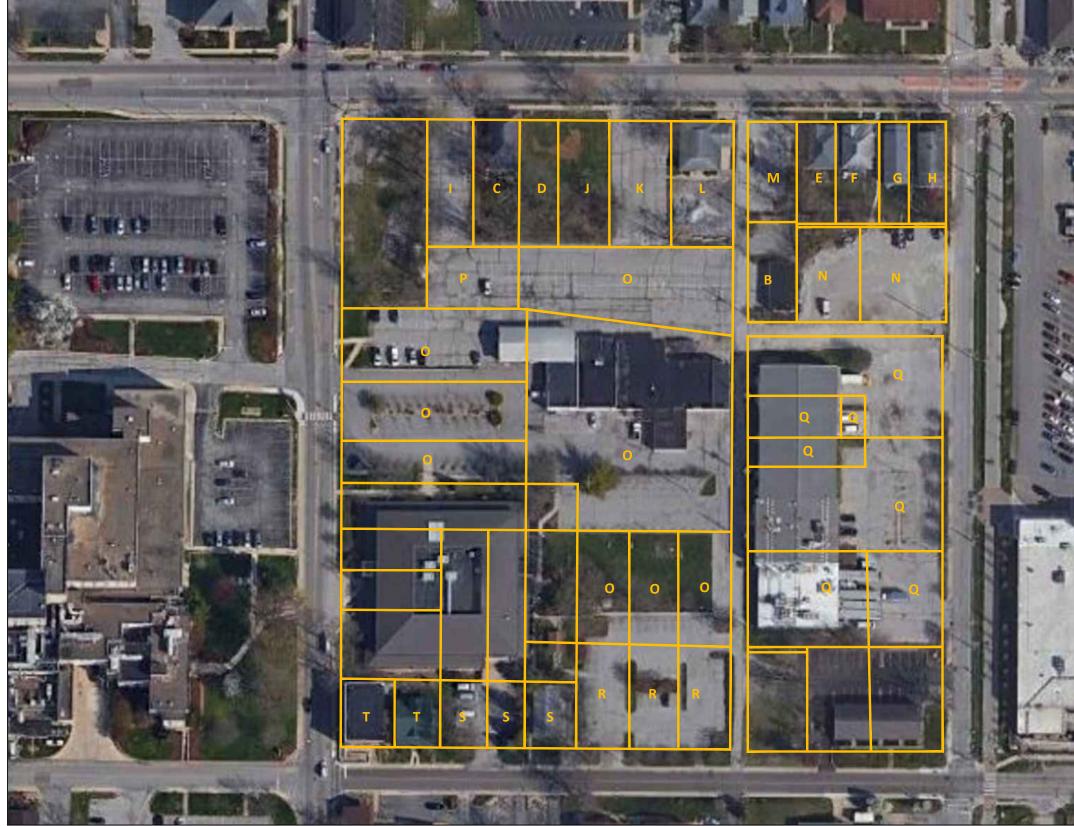


 Drawn by:
 ILJ

 Checked by:
 JB

 Approved by:
 PL

 Date:
 February, 2022

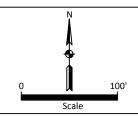


ID#	Address	Parcel #
В	605 S Madison, Bloomington, IN 47403	53-08-05-100-129.000-009
С	409 W 2nd St., Bloomington, IN 47403	53-08-05-100-081.000-009
D	407 W 2nd St., Bloomington, IN 47403	53-08-05-100-047.000-009
E	313 W 2nd St., Bloomington, IN 47403	53-08-05-100-118.000-009
F	311 W 2nd St., Bloomington, IN 47403	53-08-04-200-182.000-009
G	303 W 2nd St., Bloomington, IN 47403	53-08-04-200-136.000-009
Н	301 W 2nd St., Bloomington, IN 47403	53-01-55-251-000.000-009
I	411 W 2nd St., Bloomington, IN 47403	53-08-05-100-048.000-009
J	403 W 2nd St., Bloomington, IN 47403	53-08-05-100-053.000-009
K	401 W 2nd St., Bloomington, IN 47403	53-08-05-100-069.000-009
L	321 W 2nd St., Bloomington, IN 47403	53-08-05-100-052.000-009
М	W 2nd St., Bloomington, IN 47403	53-08-05-100-130.000-009
N	W 2nd St., Bloomington, IN 47403	53-01-56-030-000.000-009
0	635 S Rogers St., Bloomington, IN 47403	53-08-05-100-056.000-009
Р	407 W 2nd St., Bloomington, IN 47403	53-08-05-100-128.000-009
Q	640 S Morton St., Bloomington, IN 47403	53-08-05-100-113.000-009
R	400 W 1st St., Bloomington, IN 47403	53-08-05-100-017.000-009
S	410 W 1st St., Bloomington, IN 47403	53-08-05-100-094.000-009
Т	653 S Rogers St., Bloomington IN 47403	53-08-05-100-034.000-009

Exhibit 2 - Parcel Depiction
Soil Management Plan
630 S. Morton Street, 653 S. Rogers Street and 411 W. 1<sup>st</sup> Street
Bloomington, Monroe County, Indiana
Metric Project # 21-0098

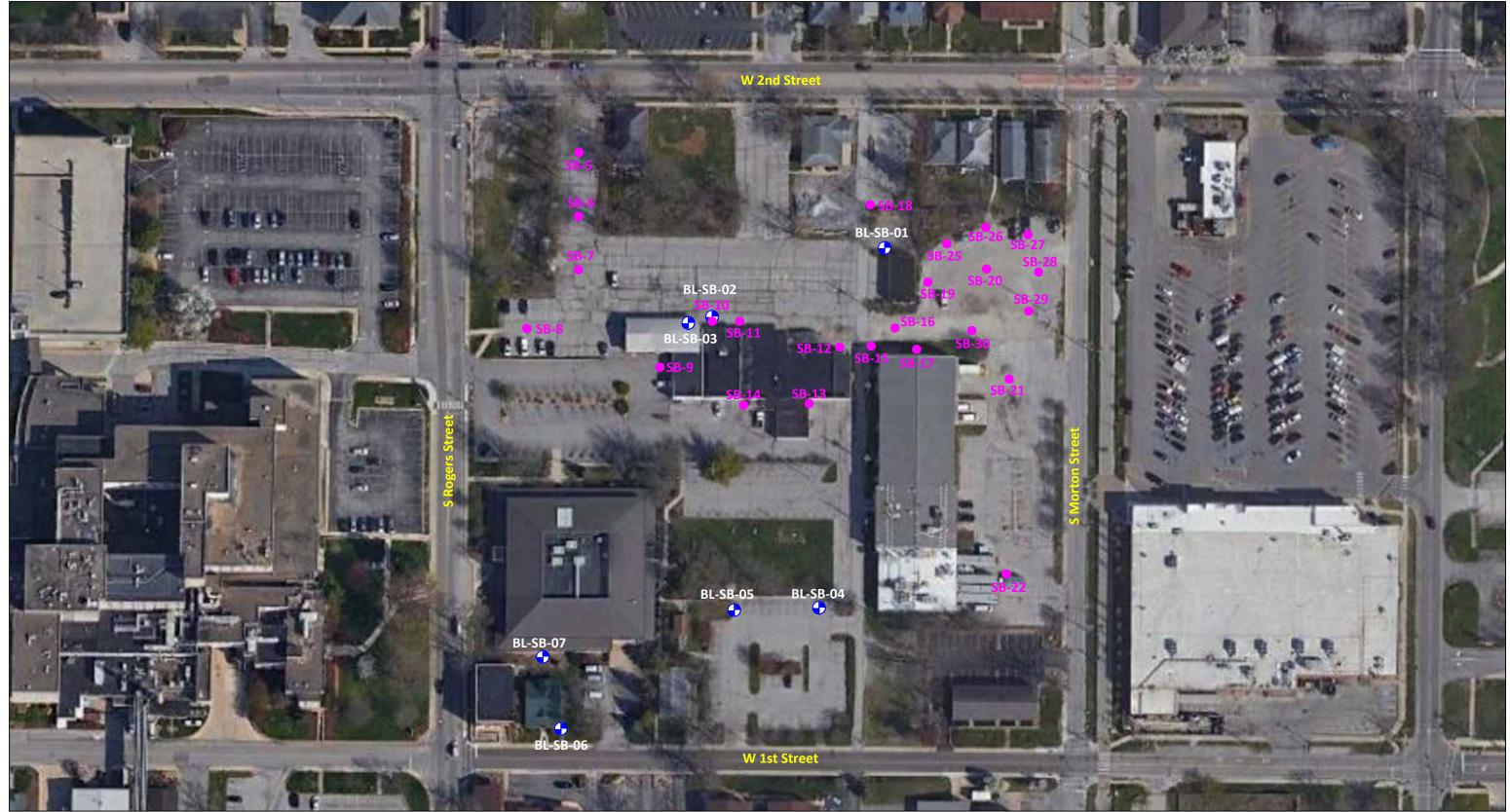
Note: All locations are approximate

Parcel Lines



1	N	٨	1	E	1	T	4		)	k		
E	И	٧	ı	R	0	N	М	E	N	Т	A	L

Drawn by: <u>ILJ</u> Checked by: JB Approved by: PL February, 2022



Source: https://monroein.elevatemaps.io/#extent=3108000.7493267483,3107334.0826600813,1425664.5816117919,1425360.3281395698,2245

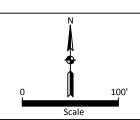
Exhibit 3 - Soil Boring Locations
Soil Management Plan
630 S. Morton Street, 653 S. Rogers Street and 411 W. 1<sup>st</sup> Street
Bloomington, Monroe County, Indiana
Metric Project # 21-0098

Note: All locations are approximate



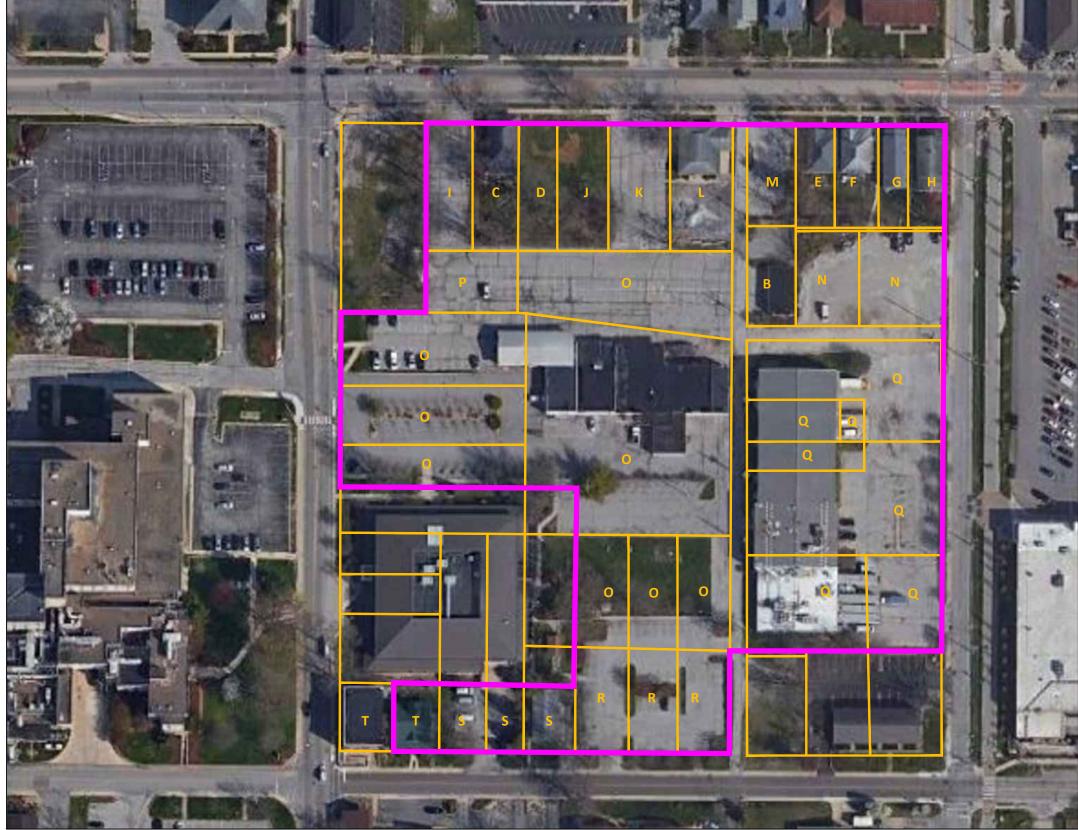
Metric Boring Location

August Mack Boring Locations





Drawn by: Checked by: JB Approved by: PL February, 2022

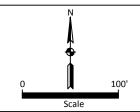


ID#	Address	Parcel #
В	605 S Madison, Bloomington, IN 47403	53-08-05-100-129.000-009
С	409 W 2nd St., Bloomington, IN 47403	53-08-05-100-081.000-009
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Н	301 W 2nd St., Bloomington, IN 47403	53-01-55-251-000.000-009
ı	411 W 2nd St., Bloomington, IN 47403	53-08-05-100-048.000-009
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S	410 W 1st St., Bloomington, IN 47403	53-08-05-100-094.000-009
Т	653 S Rogers St., Bloomington IN 47403	53-08-05-100-034.000-009

### Exhibit 4 - SMP Area

Soil Management Plan 630 S. Morton Street, 653 S. Rogers Street and 411 W. 1<sup>st</sup> Street Bloomington, Monroe County, Indiana Metric Project # 21-0098 Note: All locations are approximate



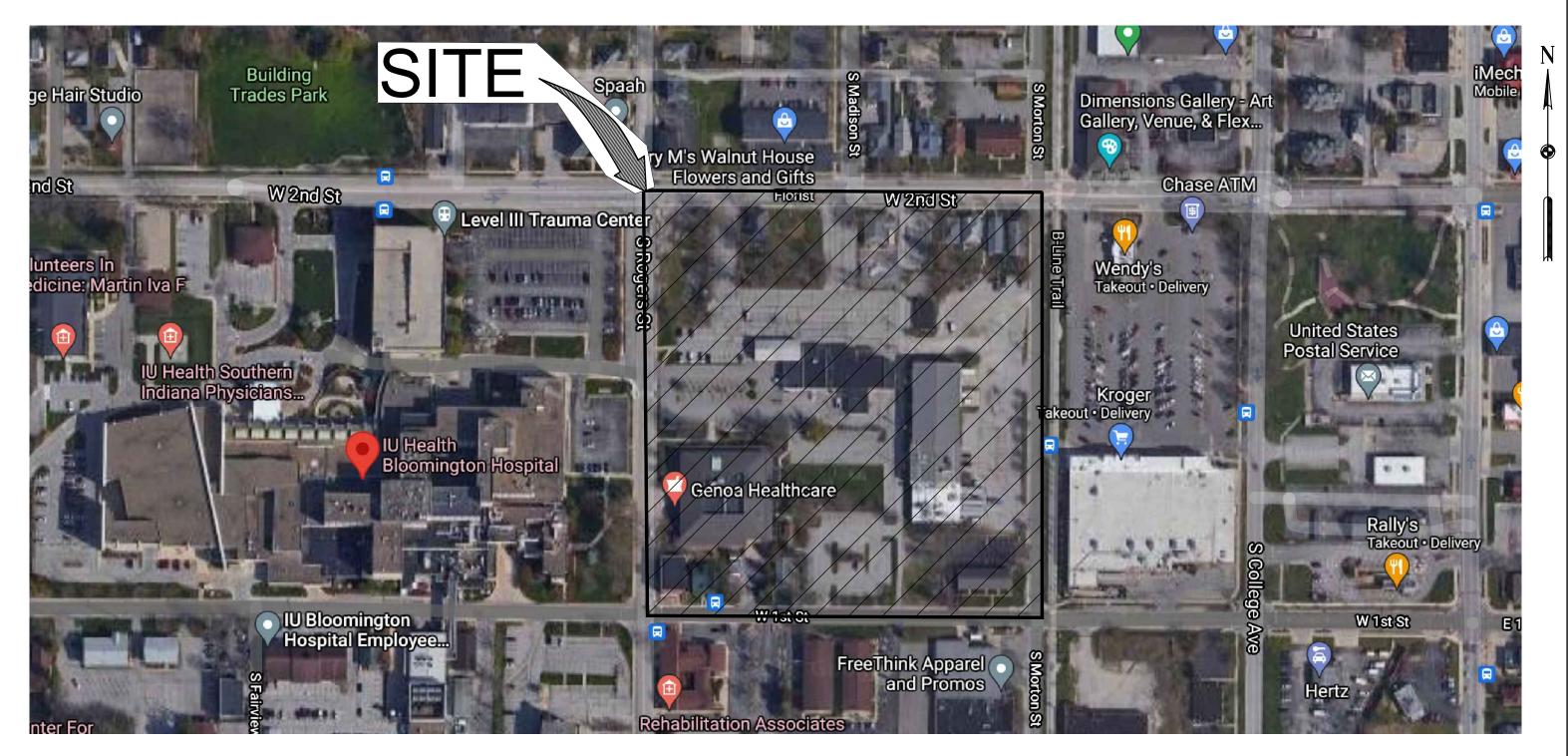




Checked by: JB May, 2022

# SOUTH ELKHART BEND LOGANSPORT LOGANSPORT LOGANSPORT MONROE COUNTY TERRE RAUTE BLOOMINGTON LOUISVILLE KENTUCKY

# GENERAL LOCATION MAP NOT TO SCALE

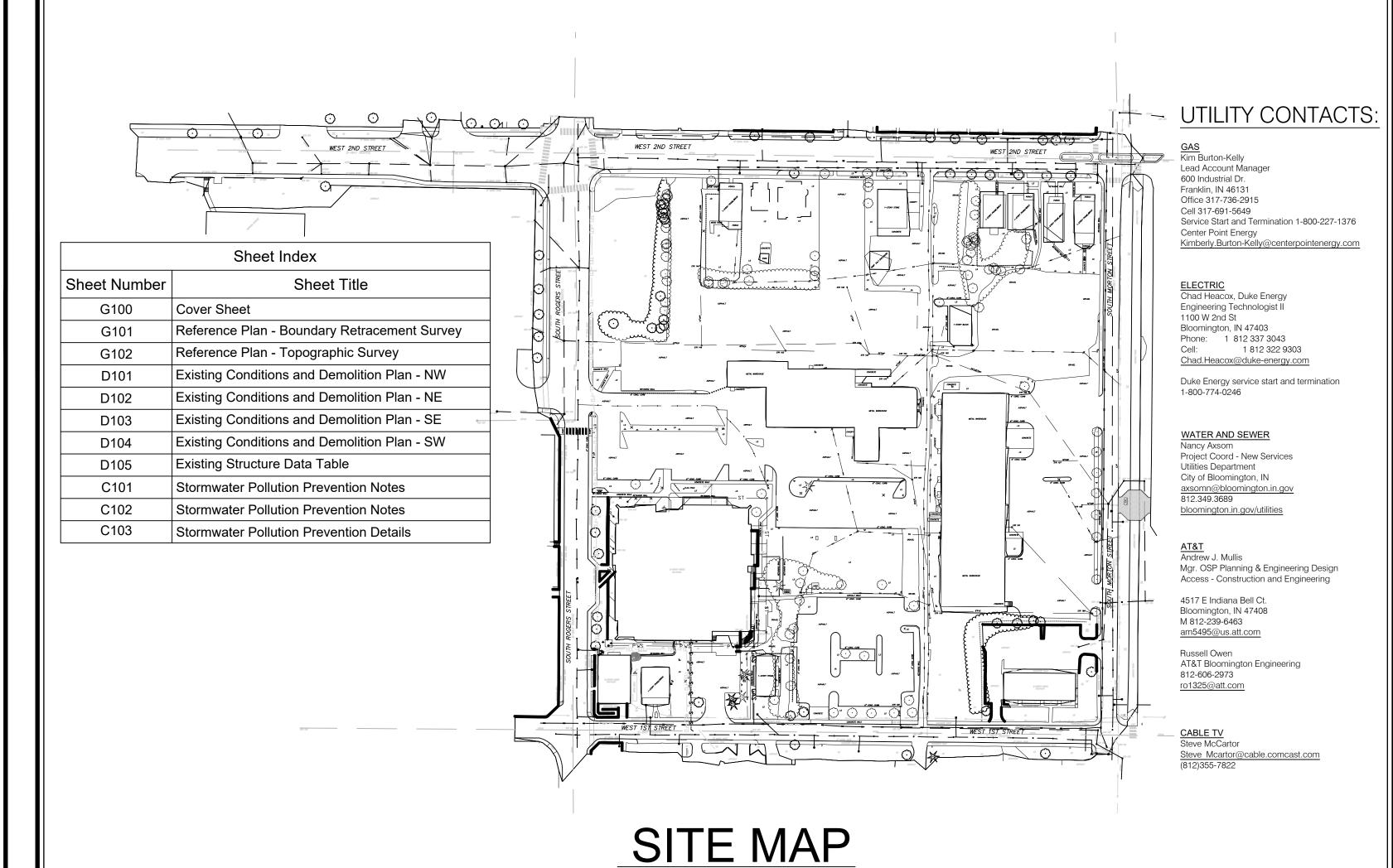


# PROJECT LOCATION MAP

NOT TO SCALE

# HOPEWELL PHASE 1 EAST

CONTRACT ONE: BUILDING DEMOLITION AND REMEDIATION
BLOOMINGTON, INDIANA 47403
05/20/2022



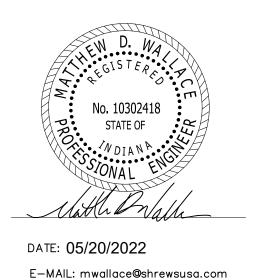








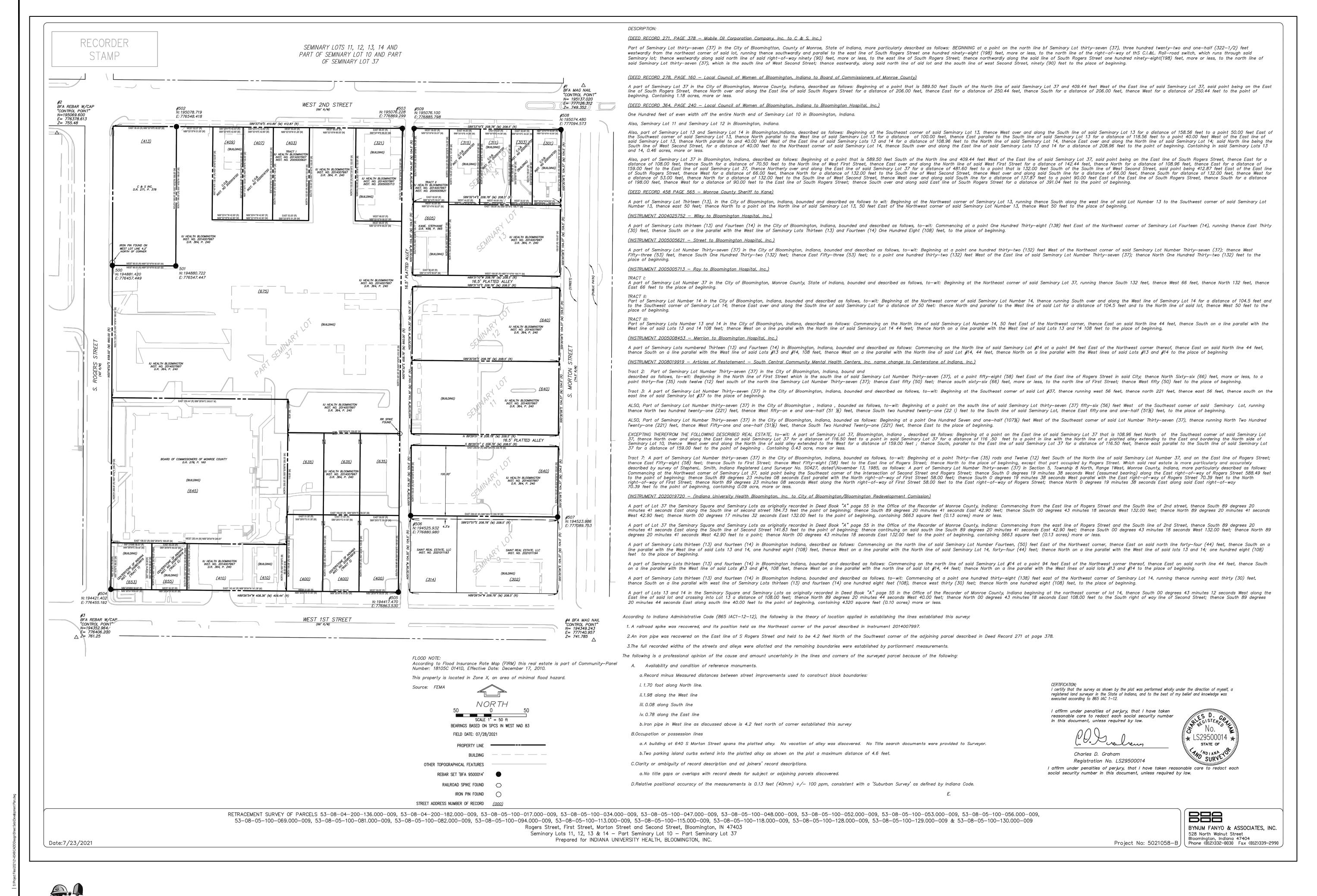
SCALE = 1' = 100'



PERMIT SET

21-0049 SHEET

23 PM | S:\Project Files\2021\21-0049\C\



REFERENCE PLAN Scale: 1" = 40'-0"

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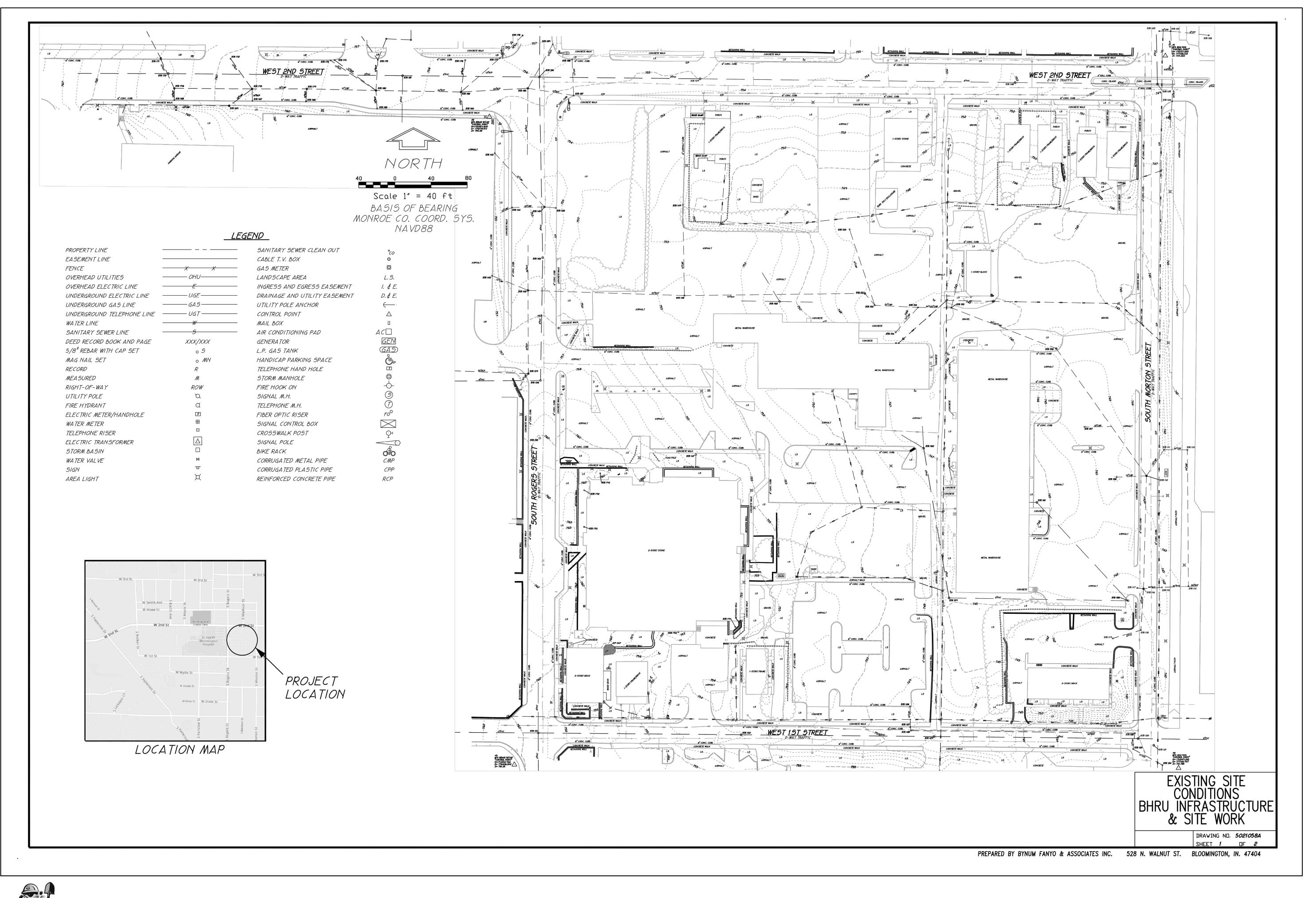
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CITY OF BLOOMINGTO LOOMINGTON, INDIANA

PROJECT NO. 21-0049 CHECKED BY RDR MDW AWING STATUS

**PERMIT SET** 

REFERENCE PLAN - BOUNDAR\ RETRACEMENT SURVEY



REFERENCE PLAN

Scale: 1" = 40'-0"

0' 20' 40' 80'

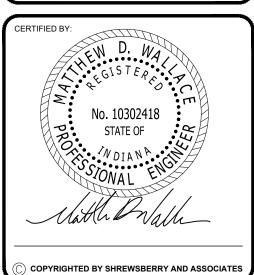
NO. DATE DESCRIPTION

1 05/16/22 SEEDING/MULCHING LIMITS

2 05/20/22 PLAN REVISIONS







L SUBDIVISION REDEVELOPMENT
PROJECT
CITY OF BLOOMINGTON
BLOOMINGTON, INDIANA 47403

PROJECT NO.:
21-0049
CHECKED BY:

DATE: PROJECT NO.:

03/30/2022 21-0049

DRAWN BY: CHECKED BY:

RDR MDW

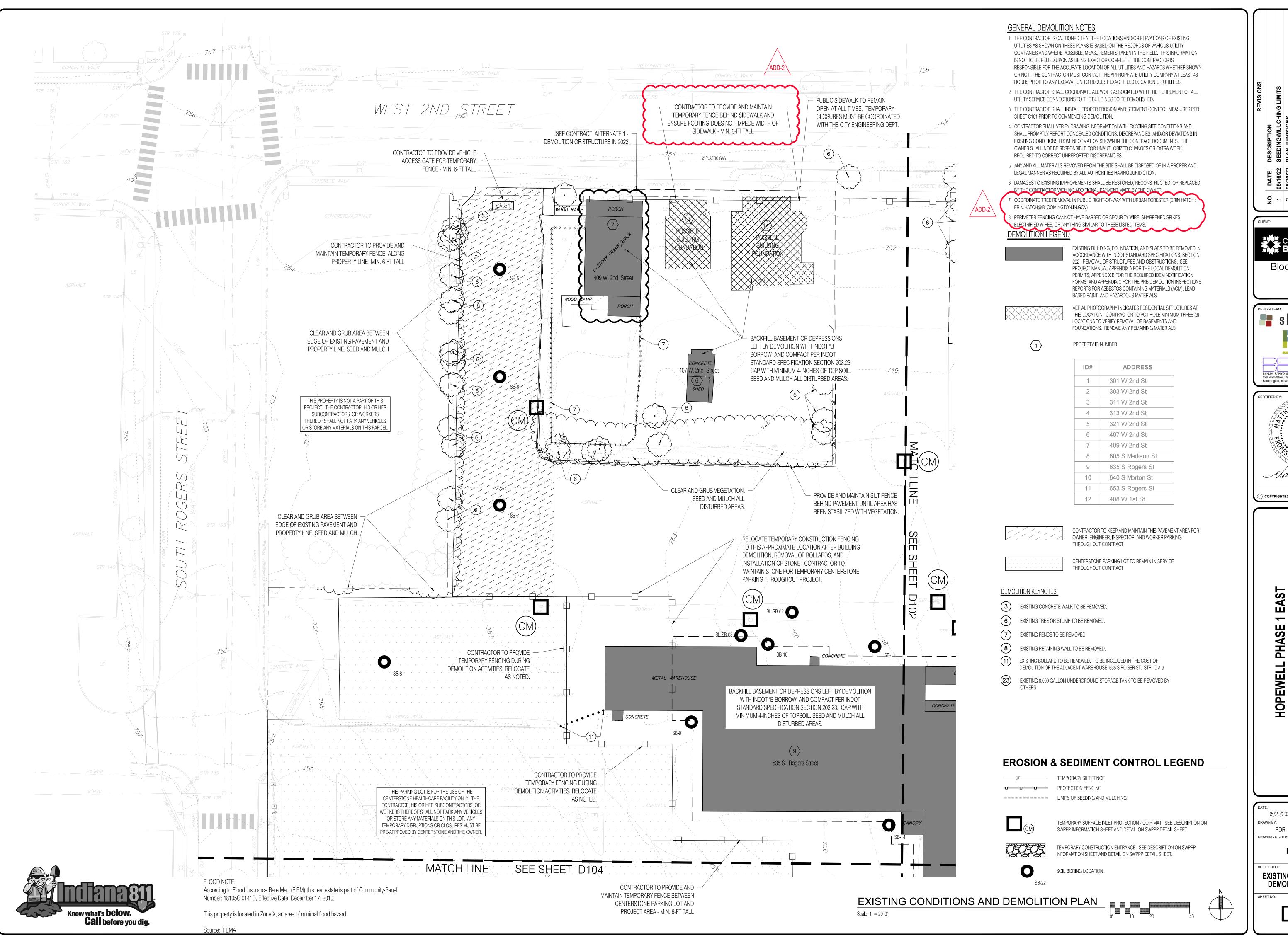
DRAWING STATUS:

PERMIT SET

REFERENCE PLAN TOPOGRAPHIC SURVEY

G102

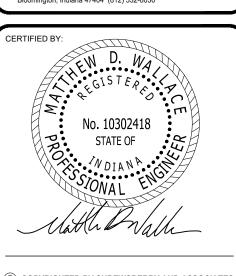




BLOOMINGTON Bloomington, IN

47403

📲 shrewsberry BYNUM FANYO & ASSOCIATES, INC. 528 North Walnut Street Bloomington, Indiana 47404 (812) 332-8030

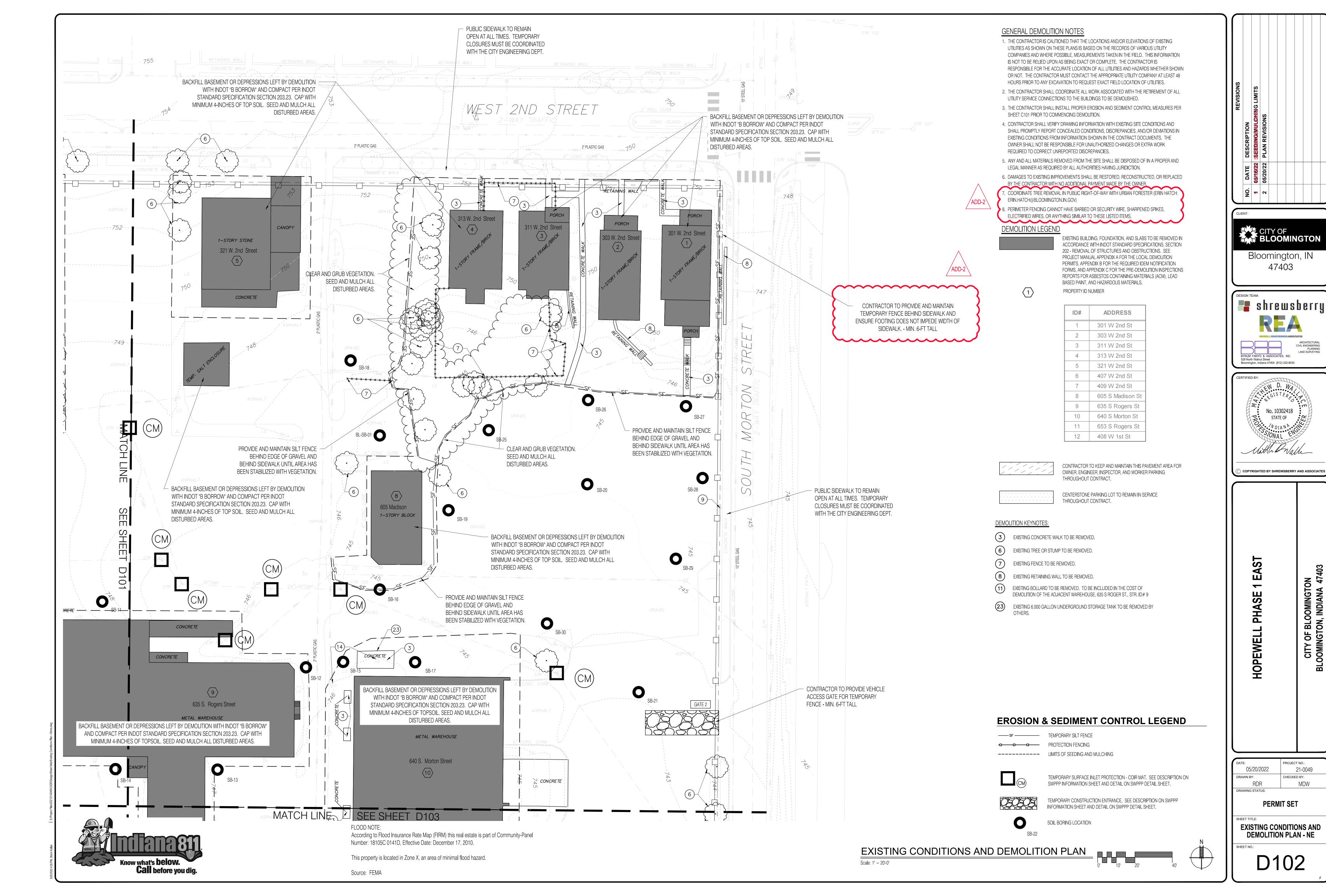


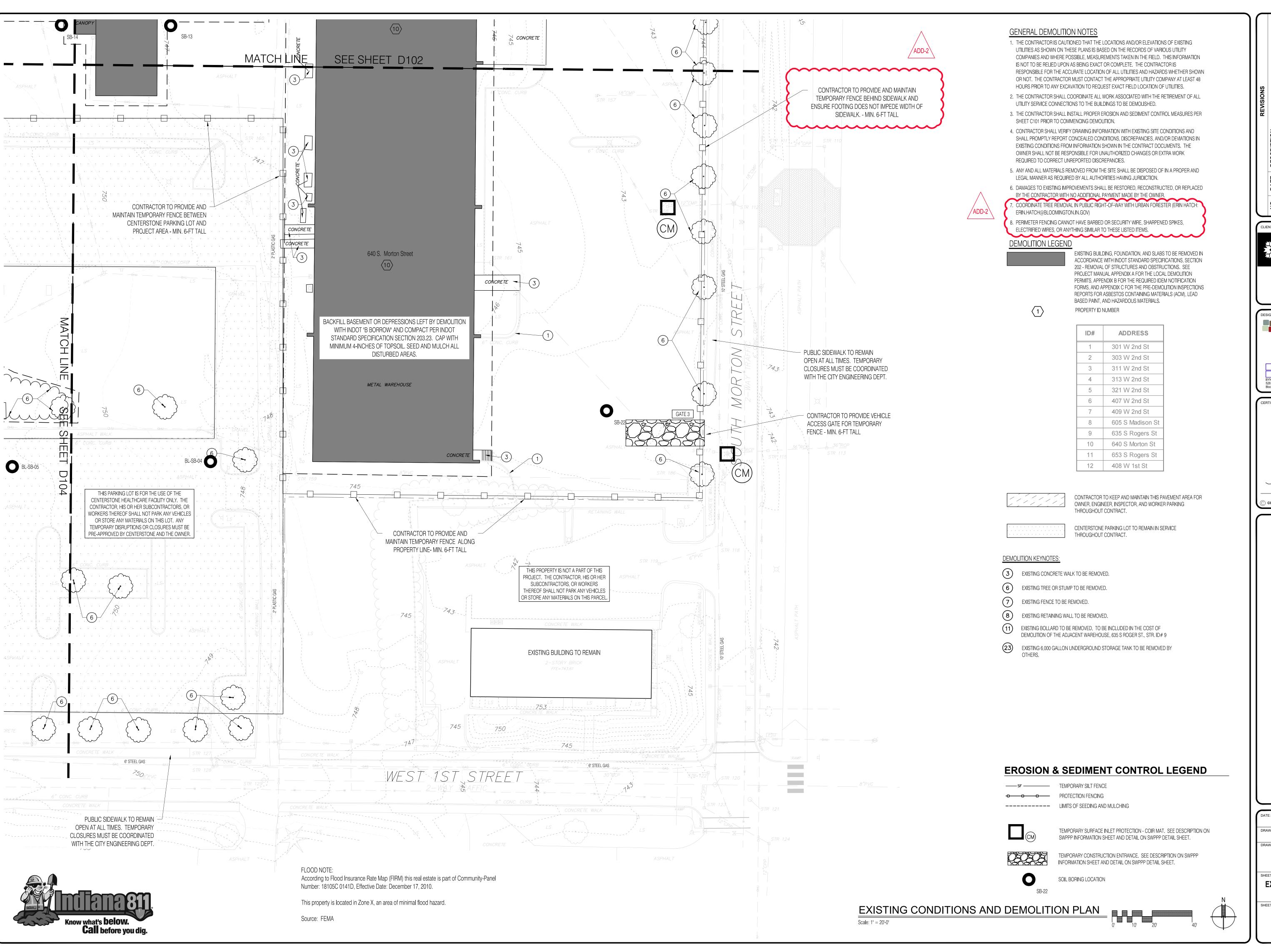
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CITY OF BLOOMINGTON BLOOMINGTON, INDIANA 4740

PROJECT NO.: 21-0049 RDR **PERMIT SET** 

**EXISTING CONDITIONS AND DEMOLITION PLAN - NW** 





DATE DESCRIPTION

05/20/22 PLAN REVISIONS

05/20/22 PLAN REVISIONS

CITY OF BLOOMINGTON

Bloomington, IN

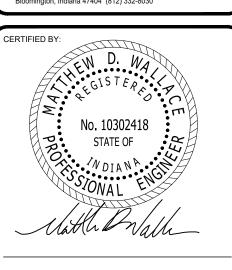
47403

Shrewsberry

REA

ARCHITECTURAL
CIVIL ENGINEERING
PLANNING
PLANNING
LAND SURVEYING

BYNUM FANYO & ASSOCIATES, INC.
528 North Walnut Street
Bloomington, Indiana 47404 (812) 332-8030



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L PHASE 1 EAST

CITY OF BLOOMINGTON BLOOMINGTON, INDIANA 4740

ATE: PROJECT NO.:

05/20/2022 21-0049

RAWN BY: CHECKED BY:

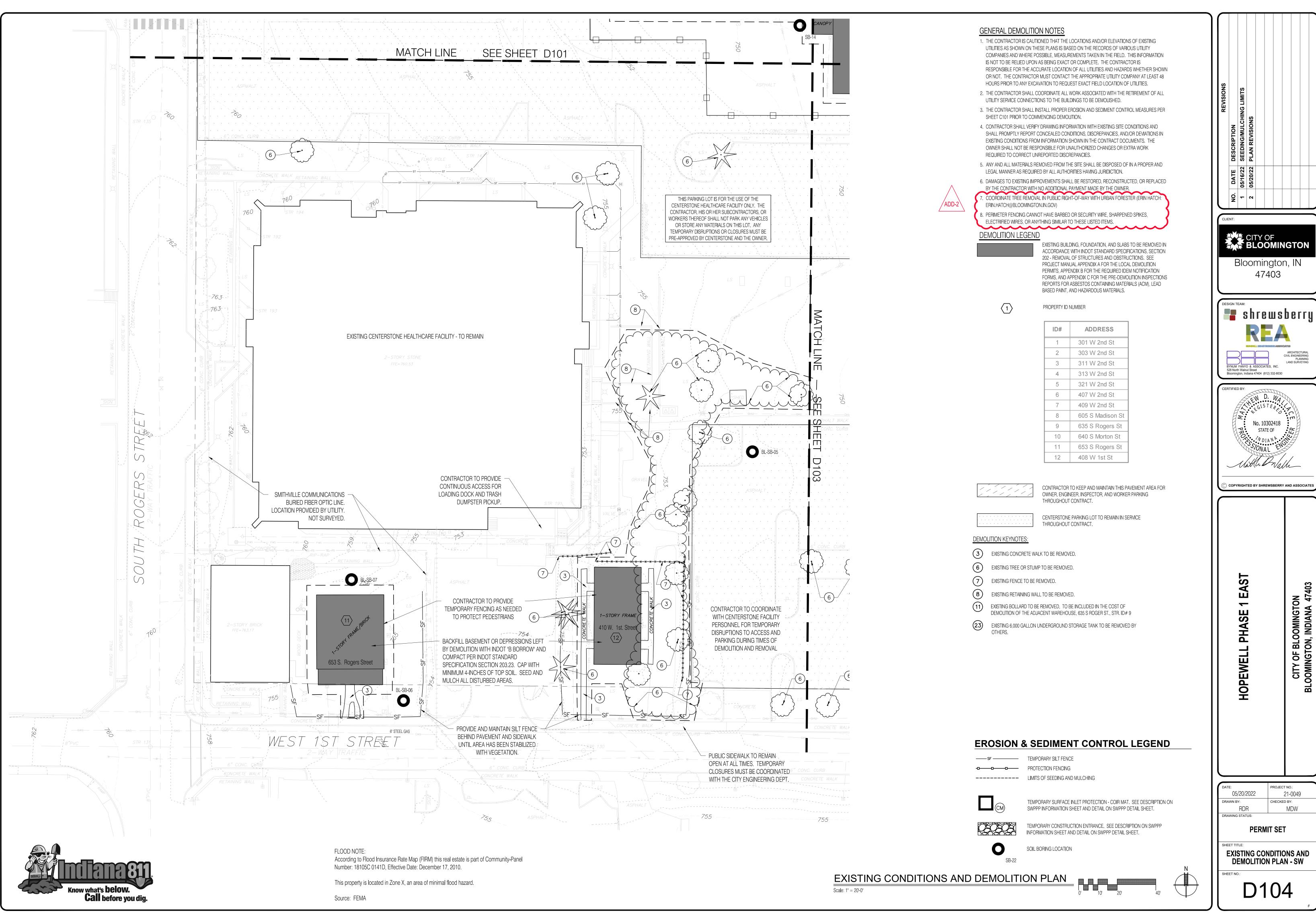
RDR MDW

RAWING STATUS:

PERMIT SET

EXISTING CONDITIONS AND DEMOLITION PLAN - SE

D103



**EXISTING CONDITIONS AND DEMOLITION PLAN - SW** 

D104

**PERMIT SET** 

PROJECT NO.:

21-0049

CITY OF BLOOMINGTON BLOOMINGTON, INDIANA 47403

BLOOMINGTON

47403

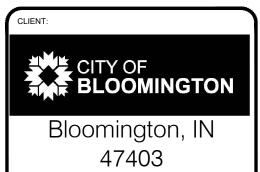
				INVERT								INVERT				
Str. No.	Rim Elevation	STRUCTURE TYPE		ELEVATION	ĺ			Str. No.	Rim Elevation	STRUCTURE TYPE		ELEVATIO	N			
			NORTH		EAST	WEST					NORTH	SOUTH	EAST	WEST		
100	750.94	STORM INLET			748.79			146	752.61	STORM INLET				748.31		
101	748.83	STORM INLET	746.73	746.58	746.73	746.77		147	756.35	SANITARY M.H.		748.50				
102	748.30	STORM INLET			746.80	746.84		148	752.64	STORM INLET	748.64		744.74	748.64		
103	748.90	STORM INLET	746.40	746.40	1 10100	1		149	751.98	STORM INLET	1 1000	750.48	1	1		
							OUTFALL	150	747.44	STORM INLET		745.04				
							FROM	151	746.94	STORM M.H.		741.34		741.34	*Note: All	
104	748.66	STORM INLET	746.16	746.16			104 745.44	152	746.14	STORM INLET	742.74	1 1210 1	741.64	741.64	structures	
105	749.54	SANITARY M.H.	745.14		742.42	742.48		153	745.88	STORM INLET	7 1217 1	741.08	741.08	741.08	except 190-194 are	
106	758.13	SANITARY M.H.	751.15	751.09				154	745.21	STORM INLET	741.91	7 12100	7 12.00	7 12.00	typical	
107	748.59	SANITARY M.H.	752,25		741.63	741.69		155	745.29	STORM INLET	741.19		740.69	740.69	concrete with either	
108	752.05	SANITARY M.H.			746.67	746.73		156	743.95	STORM M.H.	739.95	739.95	740.03	740.03	concrete or	
109	755.00	SANITARY M.H.			747.86	747.92		157	742.00	STORM INLET	733.53	733.33	739.60	739.90	brick risers	
110	742.81	STORM INLET		738.56	747.00	738.71		158	742.00	STORM INLET			740.14	739.90	rings	
111	741.60	STORM INLET		739.85	739.00	736.71			+	<del>                                     </del>	741.21		1			
<u> </u>	, 41.00	STORIVI IIVLET		133.63	733.00		NW	159 160	745.41 746.80	SANITARY M.H. SANITARY M.H.	741.31 742.30	742.20	741.31	NW 74	2.6	
112	743.16	STORM M.H.	738.58	738.42		738.48	738.48				742.30	742.20		+ + + + + + + + + + + + + + + + + + + +	2.0	
113	741.63	STORM INLET	737.23		735.93	735.99		161	745.96	SANITARY M.H.	746.65	741.76	742.05	742.06		
115	741.42	STORM INLET			736.28	736.22		162	750.95	SANITARY M.H.	746.65	750.54	743.05	743.05	Structures	
116	742.07	STORM M.H.	736.01	738.17	735.93	738.97		163	753.71	SANITARY M.H.	750.41	750.51	1	+ + + + + + + + + + + + + + + + + + + +	190-194 are	
117	741.46	STORM INLET			738.86			164	755.28	STORM INLET	751.53			+ + + -	smaller,	<u> </u>
118	741.11	STORM INLET	739.59			739.63		165	756.03	STORM INLET	751.98				private drainage	
119	741.22	STORM INLET			739.82			166	757.21	STORM INLET	754.21				structures	
120	742.54	SANITARY M.H.			736.60	736.68		167	758.74	STORM INLET	756.74				not part of the citys	
			NO					168	761.23	STORM INLET	759.33				infrastructure.	
121	742.27	CANUTARY NATU	PIPING, VACATED					169	760.11	STORM M.H.	756.51			756.51		
121	742.27	SANITARY M.H.	VACATED	700.50		722.52		170	762.21	SANITARY M.H.			756.81	756.71		
122	742.14	STORM INLET	720.25	738.60	720.40	738.60		171	762.33	STORM INLET/M.H.	760.58	759.33				
123	742.05	STORM INLET	739.25		739.19		OUTFALL	172	759.68	STORM INLET		757.18				
			CANT				FROM	173	756.73	STORM INLET		754.73				
			OPEN				124	174	756.65	STORM INLET		754.65				
124	742.20	STORM INLET	STRUCTUR	(E			739.09	175	756.08	STORM INLET		753.58				
125	736.27	SANITARY M.H.	731.57	746.46	731.21	731.27		176	755.77	STORM INLET		753.37				
126	748.42	STORM INLET		746.16				177	755.84	STORM INLET	753.34	753.24				
127	749.08	STORM INLET	745.82	745.68				178	757.48	STORM INLET		754.13				
128	749.15	STORM INLET	745.87		744.45			179	757.37	STORM M.H.		754.17	753.97	754.17		
129	749.08	SANITARY M.H.			743.92	743.98		100	756.46	STORMAN	CANT					
130	753.10	SANITARY M.H.			748.30	748.36		180	756.46	STORM M.H.	OPEN	750.47	750.47	750 17		
131	759.53	SANITARY M.H.	753.93	754.13	753.63	753.83		181	756.47	SANITARY M.H.		750.17	750.17	750.17		
132	764.95	SANITARY M.H.	757.29	757.35				182	755.70	STORM M.H.	751.42	751.40	748.80	749.00		
133	781.08	SANITARY M.H.			775.88	775.98		183	755.44	STORM M.H.	751.54	748.14	749.94	748.34		
			NO PIPING,					184	755.96	SANITARY M.H.	748.96	749.06	748.76	748.96		
135	760.17	SANITARY M.H.	VACATED					185	767.42	SANITARY M.H.	760.02 CANT	759.92	762.22	763.22		
136	757.59	SANITARY M.H.	751.17			751.21		186	742.45	SANITARY M.H.	OPEN					
								187	754.13	STORM INLET	752.03			751.93		
			CANT OPEN					188	755.45	STORM INLET		752.55				
137	765.95	SANITARY M.H.	STRUCTUR	ı <b>E</b>				189	756.59	STORM INLET		754.19	1			
138	764.26	STORM M.H.			757.40	757.50		190	752.58	STORM INLET		748.28				
139	757.20	STORM M.H.	751.94	752.72		751.98		191	749.64	STORM INLET	748.44	1.5.25				
140	756.04	STORM INLET			750.14			192	759.18	STORM INLET	759.33			+ + -		
142	754.41	STORM M.H.	747.25	747.37	746.65	748.51		192	759.18	STORM INLET	759.35			+ +		<del></del>
143	754.09	STORM INLET		749.84				193	759.18	STORM INLET	759.74					
	752.57	STORM INLET			748.87	748.87		194	/33.10	STORIVI IINLET	PAVED					
					1	1.2.0.		195	759.11	STORM M.H.	OVER					
			FULL OF								PAVED					
145	753.21	STORM M.H.	SEDIMENT & DEBRIS					196	761.62	STORM M.H.	OVER					
173	, 33.21	STORIVI IVI. II.	Ø DEDNI3	1	L	<u> </u>										

EXISTING SITE CONDITIONS BHRU INFRASTRUCTURE & SITE WORK

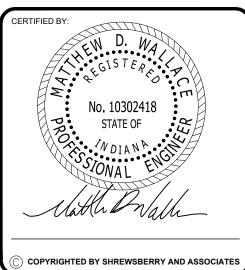
DRAWING NO. 5021058A SHEET 2 DF 2

PREPARED BY BYNUM FANYO & ASSOCIATES INC. 528 N. WALNUT ST. BLOOMINGTON, IN. 47404





DESIGN TEAM.
💶 shrewsberry
REA
<b>MUNDELL ERNSTBERGER AGSOCIATES</b>
ARCHITECTURAL CIVIL ENGINEERING PLANNING LAND SURVEYING BYNUM FANYO & ASSOCIATES, INC. 528 North Walnut Street Bloomington, Indiana 47404 (812) 332-8030
CERTIFIED BY:
D. WA



CITY OF BLOOMINGTON BLOOMINGTON, INDIANA 47403

HOPEWELL PHASE 1 EAST

	•				
DATE:	PROJECT NO.:				
05/20/2022	21-0049				
DRAWN BY:	CHECKED BY:				
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EXISTING STRUCTURE DATA TABLE

D105

A1 INDEX OF THE LOCATION OF REQUIRED PLAN ELEMENTS IN THE CONSTRUCTION PLAN: THIS DOCUMENT REPRESENTS THE PLAN INDEX. THE CONTENT IS ORGANIZED ACCORDING TO THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (IDEM) STANDARD PLAN REVIEW CHECKLIST AND PROVIDES DETAILED INFORMATION RELATED TO STORMWATER POLLUTION PREVENTION FOR THE HOPEWELL SUBDIVISION PHASE 1 EAST BUILDING DEMOLITION AND REMEDIATION PROJECT

A2 A VICINITY MAP DEPICTING THE PROJECT SITE LOCATION IN RELATIONSHIP TO RECOGNIZABLE LOCAL LANDMARKS, TOWNS, AND MAJOR ROADS: HE PROJECT LOCATION IS IDENTIFIED ON THE COVER SHEET.

A3 NARRATIVE OF THE NATURE AND PURPOSE OF THE PROJECT:
THIS PROJECT INCLUDES BUILDING DEMOLITION, TREE CLEARING, AND REMOVAL OF CONTAMINATED SOILS. THIS PROJECT IS THE FIRST PHASE OF A MULTI-PHASE PROJECT TO REDEVELOP THE INDIANA UNIVERSITY (IU) HEALTH HOSPITAL PROPERTIES.

A4 LATITUDE AND LONGITUDE TO THE NEAREST FIFTEEN (15) SECONDS: LATITUDE = 39° 09' 37" N LONGITUDE = 86° 32' 15" W

A5 LEGAL DESCRIPTION OF THE PROJECT SITE:
THE PROJECT IS LOCATED IN THE NORTHWEST QUARTER OF SECTION 5, TOWNSHIP 8 NORTH, RANGE 1 WEST OF THE SECOND PRINCIPAL MERIDIAN IN MONROE COUNTY, INDIANA. THE PROJECT LOCATION IS PART OF SEMINARY LOTS 37 AND 10, AS WELL AS ALL OF LOTS 11, 12, 13,

A6 11 X 17-INCH PLAT SHOWING BUILDING LOT NUMBERS/BOUNDARIES AND ROAD LAYOUT/NAME. THE ORIGINAL INDIANA CODE FOR "RULE 5" SPECIFIED SUBMITTAL OF A HARD COPY OF THE SITE PLAN PRINTED ON 11X17 PAPER. AS SUBMITTALS ARE NOW COMPLETED ELECTRONICALLY, A PHYSICAL 11X17 SITE PLAN CAN BE PROVIDED UPON REQUEST. OTHERWISE, SEE SHEETS C1.0-SITE PLAN FOR ALL REQUIRED INFORMATION.

7 BOUNDARIES OF THE ONE HUNDRED (100) YEAR FLOODPLAINS, FLOODWAY FRINGES, AND SEE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FIRMETTE FLOOD PANEL ON THIS SHEET. THIS PANEL IS A PORTION OF FLOOD INSURANCE RATE MAP 18105C0141D EFFECTIVE

12/17/2010.

O THE NORTH CONSISTS OF RESIDENTIAL HOUSING AND LIGHT COMMERCIAL PROPERT TO THE EAST IS A COMMERCIAL DEVELOPMENT. TO THE SOUTH ARE APARTMENTS, COMMERCIAL PROPERTIES, AND HEALTHCARE FACILITIES. THE OLD IU HEALTH HOSPITAL IS LOCATED TO THE WEST; HOWEVER, THE HOSPITAL IS SCHEDULED FOR DEMOLITION. UPON COMPLETION OF DEMOLITION, THE PROPERTY OWNERSHIP WILL BE TRANSFERRED TO THE CITY FOR FUTURE PHASES OF THIS OVERALL PROJECT.

A9 IDENTIFICATION OF A U.S. EPA APPROVED OR ESTABLISHED TMDL:
CLEAR CREEK IS NOT LISTED ON THE U.S. EPA 303(d) IMPAIRED WATERS BUT IS CONSIDERED IMPAIRED DUE TO ESCHERICHIA COLI (E. COLI) BACTERIA.

HE SUBJECT PROPERTY DISCHARGES INTO PUBLIC STORM SEWERS IN MORTON STREET AND 1ST STREET BEFORE ULTIMATELY DISCHARGING TO CLEAR CREEK.

VATERS AND THE POLLUTANT(S) FOR WHICH IT IS IMPAIRED

A12 SOILS MAP OF THE PREDOMINATE SOIL TYPES: SEE SOILS MAPS ON THIS SHEET. ACCORDING TO THE SOIL REPORT FOR MONROE COUNTY,

INDIANA AS PUBLISHED BY THE UNITED STATE DEPARTMENT OF AGRICULTURE (USDA) NATURAL RESOURCES CONSERVATION SERVICE (NRCS), THE SOILS PRESENT ON THE SITE ARE PRIMARILY COMPRISED OF UDORTHENTS, LOAMY (Ua), and CRIDER-URBAN COMPLEXES, 2 TO 6 PERCENT SLOPES (CtB) AND 6 TO 12 PERCENT SLOPES (CtC).

I AND LOCATION OF ALL KNOWN WETLANDS, LAKES, AND WATER COURSES ON THERE ARE NO KNOWN WETLANDS, PONDS, OR WATER COURSES PRESENT ON THE SUBJECT PROPERTY. THE NATIONAL WETLAND INVENTORY MAPS DO NOT SHOW ANY SUCH AREAS.

4 IDENTIFICATION OF ANY OTHER STATE OR FEDERAL WATER QUALITY PERMITS OR ITHORIZATIONS THAT ARE REQUIRED FOR CONSTRUCTION ACTIVITIES:

O OTHER STATE OR FEDERAL WATER QUALITY PERMITS ARE REQUIRED FOR THIS PROJECT.

MUCH OF THE SITE IS CURRENTLY IMPERVIOUS COVER CONSISTING OF PAVEMENT, SIDEWALKS, AND GRAVEL PARKING AREAS. THE RESIDENTIAL STYLE STRUCTURES ALONG 1ST AND 2ND STREETS HAVE LAWNS AND RESIDENTIAL STYLE LANDSCAPING. THE TWO WAREHOUSE STRUCTURES HAVE SMALL LANDSCAPE ISLANDS. THERE ARE ALSO SEVERAL TREES ON THE PROPERTY THAT ARE TO BE REMOVED TO MAKE WAY FOR FUTURE DEVELOPMENT. THE NEXT PHASE OF THIS PROJECT WILL INCLUDE SEVERAL NEW TREES

16 EXISTING SITE TOPOGRAPHY AT AN INTERVAL APPROPRIATE TO INDICATE DRAINAGE SEE SHEET G102 FOR EXISTING SITE TOPOGRAPHY. CONTOURS LINES ARE SHOWN THEREON.

A17 LOCATION(S) WHERE RUN-OFF ENTERS THE PROJECT SITE: STREET INLETS AT THE SOUTHERN PORTION OF THE SITE DRAIN TO STORM SEWERS IN THE STREET. THE PROJECT DOES NOT ALTER THIS DRAINAGE.

.18 LOCATION(S) WHERE RUN-OFF DISCHARGES FROM THE PROJECT SITE PRIOR TO LAND ORMWATER DISCHARGES FROM THE SITE AT TWO LOCATIONS. THE MAJORITY OF THE SITE DRAINAGE IS COLLECTED IN ON-SITE STORM SEWERS GENERALLY FLOWING WEST TO EAST ACROSS THE SITE AND THEN INTO THE PUBLIC STORM SEWER SYSTEM IN MORTON STREET. A

PORTION OF THE CENTERSTONE PARKING LOT DRAINS TO AN INLET NEAR MID-BLOCK ALONG 1ST STREET. THAT INLET DISCHARGES TO THE 1ST STREET STORM SEWER SYSTEM. THE SITE CONTAINS NUMEROUS BUILDINGS INCLUDING SMALLER RESIDENTIAL STYLE BUILDINGS, MEDICAL FACILITIES, AND WAREHOUSES. SEE SHEET G101 FOR LOCATIONS OF EXISTING

STRUCTURES ON THE PROJECT SITE. SEE SHEETS D101-D104 INDICATING BUILDINGS SCHEDULED

FOR REMOVAL AND THEIR ADDRESSES. EXISTING PERMANENT RETENTION OR DETENTION FACILITIES, INCLUDING MANMADE WETLANDS, DESIGNED FOR THE PURPOSE OF STORMWATER MANAGEMENT:
THERE ARE NO EXISTING PERMANENT RETENTION OR DETENTION FACILITIES WITHIN THIS

21 LOCATIONS WHERE STORMWATER MAY BE DIRECTLY DISCHARGED INTO GROUND WATER, UCH AS ABANDONED WELLS, SINKHOLES, OR KARST FEATURES: ORMWATER ENTERS THE GROUNDWATER THROUGH MEANS OF NORMAL PERCOLATION THROUGH THE SURFACE OF THE SOIL. THIS SITE DOES NOT HAVE ANY KNOWN SINK HOLES OR

A22 SIZE OF THE PROJECT AREA EXPRESSED IN ACRES:

A23 TOTAL EXPECTED LAND DISTURBANCE EXPRESSED IN ACRES: WORK FOR THIS PROJECT, INCLUDING BUILDING DEMOLITION, CONTAMINATED SOIL REMOVAL, AND TREE REMOVAL, INVOLVES VARIOUS DISTINCT AREAS ACROSS THE SITE; THEREFORE, THE LIMITS OF CONSTRUCTION ARE THE ENTIRE SITE - 8.67 ACRES

THE FINAL TOPOGRAPHY IS TO REMAIN EFFECTIVELY UNCHANGED FROM EXISTING TOPOGRAPHY. THE AREAS WHERE BUILDINGS ARE TO BE DEMOLISHED AND CONTAMINATED SOILS TO BE REMOVED ARE ALL TO BE RESTORED TO MATCH THE EXISTING SURROUNDING AREAS.

A25 LOCATIONS AND APPROXIMATE BOUNDARIES OF ALL DISTURBED AREAS: SEE A23 ABOVE; THE LIMIT OF THE DISTURBED AREAS IS THE PROPERTY BOUNDARY.

26 LOCATIONS, SIZE, AND DIMENSIONS OF ALL STORMWATER DRAINAGE SYSTEM SUCH AS ULVERTS, STORMWATER SEWER, AND CONVEYANCE CHANNELS: HERE ARE NO PROPOSED STORMWATER SYSTEMS FOR THIS PROJECT. THIS PROJECT ONLY INCLUDES BUILDING DEMOLITION, TREE REMOVAL, AND REMOVAL OF CONTAMINATED SOILS.

<u> 27 LOCATIONS OF SPECIFIC POINTS WHERE STORMWATER AND NON-STORMWATER DISCHARGES</u> THIS PROJECT WILL NOT INVOLVE ALTERATIONS TO STORMWATER COLLECTION. STORMWATER WILL CONTINUE TO DISCHARGE INTO EXISTING PUBLIC STORM SEWERS IN MORTON ST AND 1ST

A28 LOCATION OF ALL PROPOSED SITE IMPROVEMENTS, INCLUDING ROADS, UTILITIES, LOT DELINEATION AND IDENTIFICATION, PROPOSED STRUCTURES, AND COMMON AREAS:
THIS PROJECT ONLY INCLUDES BUILDING DEMOLITION, TREE CLEARING, AND REMOVAL OF CONTAMINATED SOILS. THERE ARE NO PROPOSED IMPROVEMENTS IN THIS PROJECT. THE PROJECT IS THE FIRST STEP IN A MULTI-PHASE PROJECT TO REDEVELOP THE INDIANA UNIVERSITY (IU) HEALTH HOSPITAL PROPERTIES. SEE BOUNDARY RETRACEMENT SURVEY SHEET FOR THE LOCATION OF ALL THE LOTS.

A29 LOCATION OF ALL ON-SITE AND OFF-SITE SOIL STOCKPILES AND BORROW AREAS:
NO STOCKPILES ARE ANTICIPATED FOR THIS PROJECT. ALL OF THE BUILDING DEMOLITION AND CONTAMINATED SOILS ARE TO BE HAULED AWAY TO AN APPROVED LANDFILL THAT IS LEGALLY CAPABLE OF ACCEPTING SUCH MATERIALS. THE CONTRACTOR WILL BE REQUIRED TO BACKFILL ALL THE CAVITIES WITH CLEAN FILL THIS PROJECT IS TO BE COMPETITIVELY BID. THEREFORE THE CONTRACTOR IS NOT YET KNOWN AND NEITHER IS THEIR BORROW LOCATION. AN AMENDMENT TO THIS PLAN CAN BE FILED TO PROVIDE INFORMATION PERTAINING TO THE CONTRACTOR'S

A30 CONSTRUCTION SUPPORT ACTIVITIES THAT ARE EXPECTED TO BE PART OF THE PROJECT: DURING REMOVAL OF CONTAMINATED SOILS, SOIL SAMPLES FROM AFFECTED AREAS IDENTIFIED IN THE SOIL MANAGEMENT PLAN WILL BE TESTED FOR CONTAMINATION. ANY SOIL DISTURBED DURING THIS PROCESS WILL BE STORED IN LEAK-PROOF BINS PRIOR TO DISPOSAL AT AN APPROPRIATE SOLID WASTE LANDFILL. THE BINS WILL BE LOCATED IN CLOSE PROXIMITY TO REMOVAL AREAS TO MINIMIZE LOSS DURING EXCAVATION.

31 LOCATION OF ANY IN-STREAM ACTIVITIES THAT ARE PLANNED FOR THE PROJECT INCLUDING, BUT NOT LIMITED TO, STREAM CROSSINGS AND PUMP AROUNDS:

ASSESSMENT OF EROSION AND SEDIMENT CONTROL / **PROJECT SITE MANAGEMENT (SECTION B)** 

B1 DESCRIPTION OF THE POTENTIAL POLLUTANT GENERATING SOURCES AND POLLUTANTS, INCLUDING ALL POTENTIAL NON-STORMWATER DISCHARGES POTENTIAL POLLUTANT SOURCES DURING CONSTRUCTION INCLUDE DISTURBED SOILS AND WINDBORNE DUST, STORED MATERIALS AND FUELS, EQUIPMENT USED DURING CONSTRUCTION. CONSTRUCTION DEBRIS AND TRASH, FERTILIZERS, PESTICIDES, AND HERBICIDES. EQUIPMENT AND FUEL WILL BE STORED IN A CENTRAL LOCATION AND THE CONTRACTOR SHALL INSTITUTE METHODS AND PROCEDURES TO PREVENT DISCHARGE OF POLLUTANTS.

**B2 STABLE CONSTRUCTION ENTRANCE LOCATIONS AND SPECIFICATIONS** THIS PROJECT CALLS FOR THREE (3) CONSTRUCTION ENTRANCES/EXITS. GATE 1 IS TO BE LOCATED ON 2ND STREET BY WAY OF THE EXISTING COMMERCIAL DRIVE AT 409 WEST 2ND STREET THIS ENTRANCE IS FOR PASSENGER VEHICLE TRAFFIC ONLY, WORKERS, OWNER'S REPRESENTATIVES. AND OTHER SUCH LIGHT VEHICLE TRAFFIC IS TO USE THIS ENTRANCE. GATES 2 AND 3 ARE LOCATED AT EXISTING CURB CUTS ON MORTON STREET. ALL CONSTRUCTION TRAFFIC, INCLUDING DUMP TRUCKS UTILIZED FOR THE TRANSPORTATION OF DEMOLITION AND SOIL REMEDIATION EFFORTS, ARE TO USE THESE TWO (2) ENTRANCES. BOTH OF THESE ENTRANCES ARE ON EXISTING PAVEMENT, SO THE CONTRACTOR SHALL CONSTRUCT CONSTRUCTION ENTRANCES BY LAYING DOWN GEOTEXTILE FABRIC ON THE EXISTING SURFACE AND COVERING IT WITH INDOT #2 STONE. A TYPICAL ENTRANCE DETAIL IS PROVIDED ON THE SWPPP DETAIL SHEETS

THE CONTRACTOR SHALL MONITOR THE PUBLIC ROADWAYS FOR TRACKING OF SOIL AND SEDIMENT ONTO THE ROADWAY. IF SUCH TRACKING OCCURS, THE CONTRACTOR SHALL CLEAN THE PUBLIC ROADWAY BY SWEEPING OR SHOVELING. FLUSHING OF SEDIMENT WITH WATER SHALL NOT BE ALLOWED AT ANY TIME UNLESS THE FLOW IS CAPTURED BY A BMP THAT ALLOWS THE WATER TO STAND AND RELEASE SLOWLY, ALLOWING SUSPENDED PARTICLES TO SETTLE OUT AND REMAIN ON-SITE

**B3 SPECIFICATIONS FOR TEMPORARY AND PERMANENT STABILIZATION** THE CONTRACTOR SHALL PROVIDE FOR IMMEDIATE TEMPORARY SEEDING AND MULCHING WHEN CONSTRUCTION ACTIVITIES ARE EXPECTED TO CEASE FOR A PERIOD OF 7 DAYS OR MORE. THIS INCLUDES ALL TEMPORARY STOCKPILES. TEMPORARY SEEDING REQUIREMENTS ARE SHOWN ON THE FOLLOWING SHEET. ADDITIONAL INFORMATION AND GUIDELINES ARE ALSO LISTED IN THE INDIANA STORMWATER QUALITY HANDBOOK.

B4 SEDIMENT CONTROL MEASURES FOR CONCENTRATED FLOW AREAS: THERE ARE NO CONCENTRATED FLOW AREAS ON THIS PROJECT.

**B5 SEDIMENT CONTROL MEASURES FOR SHEET FLOW AREAS:** SEDIMENT SILT FENCING SHALL BE PLACED ON THE SITE TO PREVENT SEDIMENT AND SOIL LOSS

FROM SHEET FLOW. SEE THE EXISTING CONDITIONS AND DEMOLITION SHEETS FOR LOCATIONS OF SILT FENCING. SEE THE SWPPP DETAIL SHEET FOR A CONSTRUCTION DETAIL. THE CONTRACTOR MAY, AT HIS OR HER OWN DISCRETION, USE OTHER COMMERCIALLY MANUFACTURED PRODUCTS SUCH AS COCONUT LOGS OR OTHER SUCH PRODUCTS SPECIFICALLY DESIGNED TO PREVENT SOIL AND SEDIMENT LOSS FROM SHEET FLOW IF SLICH A PRODUCT IS USED, THE CONTRACTOR SHALL MONITOR AND MAINTAIN THE PRODUCT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. IF COMMON SILT FENCE IS USED, MONITORING AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE INSTRUCTIONS GIVEN IN THE INDIANA STORMWATER QUALITY HANDBOOK.

THE SITE IS ALREADY GRADED SUCH THAT RUN-OFF IS DIRECTED TO THE PARKING LOT INLETS, WHICH WILL UTILIZE INLET PROTECTION MEASURES. SEE THE EXISTING CONDITIONS AND DEMOLITION PLAN SHEETS FOR THE LOCATIONS OF THESE MEASURES.

7 STORMWATER OUTLET PROTECTION LOCATION AND SPECIFICATIONS THERE ARE NO OUTLET PROTECTION MEASURES NEEDED FOR THIS PHASE OF THE OVERALL PROJECT.

**B8 GRADE STABILIZATION STRUCTURE LOCATIONS AND SPECIFICATIONS:** TEMPORARY AND PERMANENT SEEDING ARE TO BE USED FOR GRADE STABILIZATION FOR THE SMALL STRUCTURES TO BE DEMOLISHED ALONG 1ST AND 2ND STREETS. SEEDING SPECIFICATIONS ARE GIVEN ON THE FOLLOWING SHEET. THE CONTRACTOR SHOULD ALSO REFER TO THE TEMPORARY AND PERMANENT SEEDING GUIDELINES GIVEN IN THE INDIANA STORMWATER QUALITY HANDBOOK.

**B9 DEWATERING APPLICATIONS AND MANAGEMENT METHODS** 

B10 MEASURES UTILIZED FOR WORK WITHIN WATERBODIES

B11 MAINTENANCE GUIDELINES FOR EACH PROPOSED STORMWATER QUALITY MEASURE REFER TO MAINTENANCE GUIDELINES SHOWN FOR EACH EROSION CONTROL MEASURE ON SHEET

B12 PLANNED CONSTRUCTION SEQUENCE THAT DESCRIBES THE IMPLEMENTATION OF FORMWATER QUALITY MEASURES IN RELATION TO LAND DISTURBANCE

313 PROVISIONS FOR EROSION AND SEDIMENT CONTROL ON INDIVIDUAL RESIDENTIAL BUILDING OTS REGULATED UNDER THE PROPOSED PROJECT VARIOUS BUILDINGS SCHEDULED FOR DEMOLITION ARE RESIDENTIAL-STYLE STRUCTURES, BUT ARE NOT RESIDENTIAL LOTS; THEREFORE, NO FURTHER PROVISIONS ARE PROVIDED UNDER THIS

B14 MATERIAL HANDLING AND SPILL PREVENTION AND SPILL RESPONSE PLAN MEETING THE REQUIREMENTS IN 327 IAC 2-6.1

EXPECTED CONSTRUCTION MATERIALS ON SITE MAY INCLUDE VEHICLE LUBRICANTS, VEHICULAR FUELS, MULCH, PESTICIDES, HERBICIDES, FERTILIZER, AND TRASH. FUELS, OILS, AND GASOLINE CAN LEAK OR BE SPILLED FROM TRUCKS AND CONSTRUCTION EQUIPMENT WHICH CAN FIND THEIR

SMALL SPILLS AND LEAKS OF THESE MATERIALS ONTO NON-PAVED AREAS WILL BE SHOVELED INTO CONTAINERS OR DUMPSTERS FOR PROPER DISPOSAL.

FUELING TRUCKS WILL BE EQUIPPED WITH SPILL PREVENTION KITS FOR SMALLER FUEL SPILLS. ALL VEHICULAR MAINTENANCE SHALL BE PERFORMED IN THE SAME DESIGNATED AREA THROUGHOUT THE CONSTRUCTION TIME FRAME. IF POSSIBLE. VEHICULAR MAINTENANCE SHALL BE DONE OFF-SITE AT FACILITIES THAT ARE DESIGNED TO HANDLE ANY MATERIAL SPILLAGE. THIS SHALL INCLUDE FUELING OF VEHICLES WHENEVER POSSIBLE. THE BLOOMINGTON FIRE DEPARTMENT (812)-332-9763 OR 911, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (IDEM) OFFICE OF EMERGENCY RESPONSE (800)-233-7745. SHALL BE NOTIFIED IMMEDIATELY FOR LARGER SPILLS OR LEAKS. THE NATIONAL RESPONSE CENTER (800)-424-8802 SHALL BE NOTIFIED AND PROVIDED WITH THE FOLLOWING INFORMATION: TIME OF SPILL, LOCATION OF SPILL, MATERIAL, SOURCE OF SPILL, APPROXIMATE VOLUME AND LENGTH OF SPILLAGE, WEATHER CONDITIONS AT TIME OF SPILL, PERSONNEL PRESENT AT TIME OF SPILL, AND ALL ACTION TAKEN FOR POST-SPILL CLEANUP.

CONTRACTOR SHALL CONTACT A WASTE RECOVERY AGENCY IMMEDIATELY FOR REMOVAL OF CONTAMINATES AND COORDINATION OF MONITORING THE SITE DURING CLEANUP UNITIL ALL OF THE HAZARDOUS MATERIAL HAS BEEN REMOVED. CONTRACTOR SHALL COOPERATE WITH IDEM DURING AND AFTER THE SPILL TO INSURE ALL REQUIRED CLEANUP AND FILING REPORTS ARE

THE DEVELOPER SHALL BE CONTINUALLY INFORMED OF ANY CONTAMINATION CONCERNS OCCURRING ON THE SITE. THE CONSTRUCTION MANAGER SHALL KEEP ON SITE A LIST OF QUALIFIED CONTRACTORS FOR SPILL REMEDIATION. ALL SITE PERSONNEL, INCLUDING MAINTENANCE EMPLOYEES. SHALL BE MADE AWARE OF PROPER SPILL PREVENTION AND REMEDIATION TECHNIQUES. ALL MATERIALS USED TO ABSORB SPILLS SHALL BE PROPERLY DISPOSED OF IN AN APPROVED MANOR WITH LOCAL AND STATE LAWS. DO NOT FLUSH SPILL MATERIALS WITH WATER UNLESS DIRECTED TO DO SO BY A GOVERNING AGENCY. IT IS IMPORTANT THAT ALL MANUFACTURER'S INSTRUCTIONS BE FOLLOWED WHEN USING OR APPLYING ALL FERTILIZERS, HERBICIDES, AND PESTICIDES.

B15 MATERIAL HANDLING AND STORAGE PROCEDURES ASSOCIATED WITH CONSTRUCTION SEE THE ADDITIONAL MATERIALS HANDLING AND STORAGE PROCEDURES ON THIS SHEET.

ASSESSMENT OF POST-CONSTRUCTION (SECTION C)

C1 DESCRIPTION OF POLLUTANTS AND THEIR SOURCES ASSOCIATED WITH THE PROPOSED LAND USE: THIS DEMOLITION PROJECT IS THE FIRST PHASE IN A MULTI-PHASE REDEVELOPMENT OF THIS PROPERTY THERE ARE NO POTENTIAL POLLUTANT SOURCES TO NOTE AT THIS TIME. AN AMENDED SWPPP WILL BE SUBMITTED PRIOR TO ANY SITE REDEVELOPMENT.

C2 DESCRIPTION OF PROPOSED POST-CONSTRUCTION STORMWATER QUALITY MEASURES: NO POST-CONSTRUCTION STORMWATER QUALITY MEASURES ARE PROPOSED AT THIS TIME. AN AMENDED SWPPP WILL BE SUBMITTED PRIOR TO ANY SITE REDEVELOPMENT.

C3 PLAN DETAILS FOR EACH STORMWATER MEASURES:

C4 SEQUENCE DESCRIBING STORMWATER MEASURE IMPLEMENTATION: NOT APPLICABLE. SEE ABOVE.

C5 MAINTENANCE GUIDELINES FOR PROPOSED POST-CONSTRUCTION STORMWATER QUALITY MEASURES: NOT APPLICABLE. SEE ABOVE

C6 ENTITY THAT WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE POST-CONSTRUCTION RIOR TO REDEVELOPMENT, NO STORMWATER MEASURES WILL BE PRESENT ON SITE, THEREFORE NO OPERATION AND MAINTENANCE REQUIREMENTS ARE NECESSARY; SEE ABOVE. HOWEVER, AFTER REDEVELOPMENT, THE CITY OF BLOOMINGTON WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE UNTIL DEVELOPABLE PARCELS ARE SOLD.

### **GENERAL CONSTRUCTION SEQUENCING**

- NOTIFY LOCAL REVIEW AGENCY AT LEAST 48 HRS IN ADVANCE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
- FLAG OR OTHERWISE DELINEATE AND DENOTE ALL CONSTRUCTION LIMITS.
- IDENTIFY AND PROTECT ALL EXISTING VEGETATION TO REMAIN. ESTABLISH STORAGE AREAS FOR POTENTIAL POLLUTANTS SUCH AS FUELS, OILS,
- FLUIDS AND OTHER MATERIALS OF THIS NATURE. ESTABLISH PARKING AREAS FOR CONSTRUCTION EQUIPMENT, WORKERS, VISITORS,
- ETC. PARKING AREAS SHALL HAVE A TEMPORARY STONE BASE TO PREVENT VEHICLES FROM TRACKING MUD, SOIL, AND SEDIMENT OFF-SITE.
- ARRANGE FOR THE DELIVERY OF DUMPSTERS AND PORT-A-JOHNS.
- POST REQUIRED NOTICES SUCH AS THE NOI.
- INSTALL TEMPORARY CONSTRUCTION ENTRANCES.
- INSTALL SILT FENCE.
- BEGIN TOPSOIL REMOVAL AND STOCKPILE FOR FUTURE USE. ALL STOCKPILED MATERIAL IS TO BE PROTECTED WITH PERIMETER SILT FENCING, AND SHALL BE TEMPORARILY SEEDED IF LEFT UNDISTURBED FOR 7 DAYS OR LONGER. SEE TOPSOIL SALVAGE & UTILIZATION MEASURE IN THE INDIANA STORMWATER QUALITY HANDBOOK FOR FURTHER INSTRUCTIONS AND MAINTENANCE GUIDELINES.
- CONDUCT EARTHWORK TO BRING SITE TO PROPER ELEVATIONS. STABILIZE SURROUNDING AREAS WITH SEED AND CRIMPED MULCH OR EROSION CONTROL BLANKET.
- CONSTRUCT AND SIGN A CONCRETE WASHOUT AREA PRIOR TO THE PLACEMENT OF ANY CONCRETE. CONTRACTOR SHALL MONITOR THE CONCRETE WASHOUT AREA
- THROUGHOUT THE LIFE OF THE PROJECT. REPLACE OR RECONSTRUCT AS NEEDED. INSTALL DRAINAGE STRUCTURES AS REQUIRED. PROTECT AS NOTED ON PLAN. USE GEOTEXTILE BOX DROP INLET PROTECTION DEVICES OR STRAW BALE DROP INLET PROTECTION DEVICES PRIOR TO THE INSTALLATION OF PAVEMENT. USE COIR FIBER MAT INLET PROTECTION DEVICES AFTER PAVEMENT HAS BEEN PLACED.
- COMPLETE FINAL GRADING AS SHOWN ON PLANS. STABILIZE WITH SEED AND CRIMPED MULCH OR WITH SOD AS DIRECTED IN THE INDIANA STORMWATER QUALITY HANDBOOK.
- THROUGHOUT THE CONSTRUCTION PROCESS, MONITOR EQUIPMENT FOR LEAKING FLUIDS.
- ONCE ALL DISTURBED AREAS HAVE BEEN STABILIZED, FILE THE NOTICE OF TERMINATION (NOT) WITH IDEM.

# MATERIAL HANDLING & SPILL PREVENTION

- ANY ON-SITE STORAGE OF HAZARDOUS MATERIAL/POTENTIAL POLLUTANTS SUCH AS DIESEL FUEL SHALL BE STORED IN AN APPROVED TANK SURROUNDED BY A SECONDARY CONTAINMENT SYSTEM HAVING A STORAGE VOLUME OF AT LEAST 150% OF THE TANK'S CAPACITY.
- OTHER ABSORBENT MATERIALS OR OTHER SUCH ADDITIONAL CONTAINMENT PRODUCTS SHOULD BE STORED IN AN ACCESSIBLE LOCATION ADJACENT TO THE PETROLEUM STORAGE AREA.
- IN THE EVENT OF A SPILL OR RELEASE, SUMMIT ENVIRONMENTAL (1-877-421-1744) OR ANOTHER LICENSED ENVIRONMENTAL CONSULTING COMPANY SHOULD BE CONTACTED FOR CLEAN UP ASSISTANCE. IDEM OFFICE OF EMERGENCY RESPONSE (317-233-7745), BLOOMINGTON CITY ENGINEER'S OFFICE, AND EPA NATIONAL RESPONSE CENTER (1-800-424-8802, IF NECESSARY) SHALL ALSO BE NOTIFIED IN ACCORDANCE

WITH THE LAW FOR ANY SIGNIFICANT SPILLS.

- WHEN NOT IN USE, ALL CONSTRUCTION EQUIPMENT SHALL BE PARKED ONSITE IN AN AREA WHERE POTENTIAL LEAKS CAN BE CONTAINED TO THE IMMEDIATE AREA AND NOT ALLOWED TO BE CONVEYED OFFSITE OR INTO DRAINAGE SWALES OR STORM SEWERS.
- WHEN POSSIBLE, KEEP ALL MATERIALS IN THEIR ORIGINAL CONTAINERS WITH ORIGINAL LABELS WITH THEIR RESPECTIVE MATERIAL SAFETY DATA SHEETS (MSDS) ATTACHED OR ON FILE. PRODUCTS SHALL BE PROPERLY SEALED AND/OR COVERED TO PREVENT LEAKS AND SPILLS. STORE PRODUCTS IN A WEATHER PROOF, SELF CONTAINED AREA AWAY FROM HEAT, SPARKS, OR OPEN FLAMES.
- OTHER SUCH BUILDING THAT CAN BE LOCKED TO PREVENT VANDALISM OR UNAUTHORIZED ACCESS. ANY LEAKAGE OF POLLUTANTS FROM STORAGE VESSELS OR EQUIPMENT SHALL BE CLEANED UP AND DISPOSED OF OFFSITE IN A LEGAL MANNER.

• ANY HAZARDOUS MATERIALS SHALL BE SECURELY STORED IN A SHED, TRAILER, OR

 ADDRESS PROPER STORAGE/DISPOSAL OF TRASH AND CONSTRUCTION WASTE BY PROVIDING A WASTE COLLECTION AREA AND/OR DUMPSTER ONSITE IN AN AREA THAT DOES NOT RECEIVE CONCENTRATED STORMWATER RUNOFF.

### **GENERAL EROSION CONTROL NOTES**

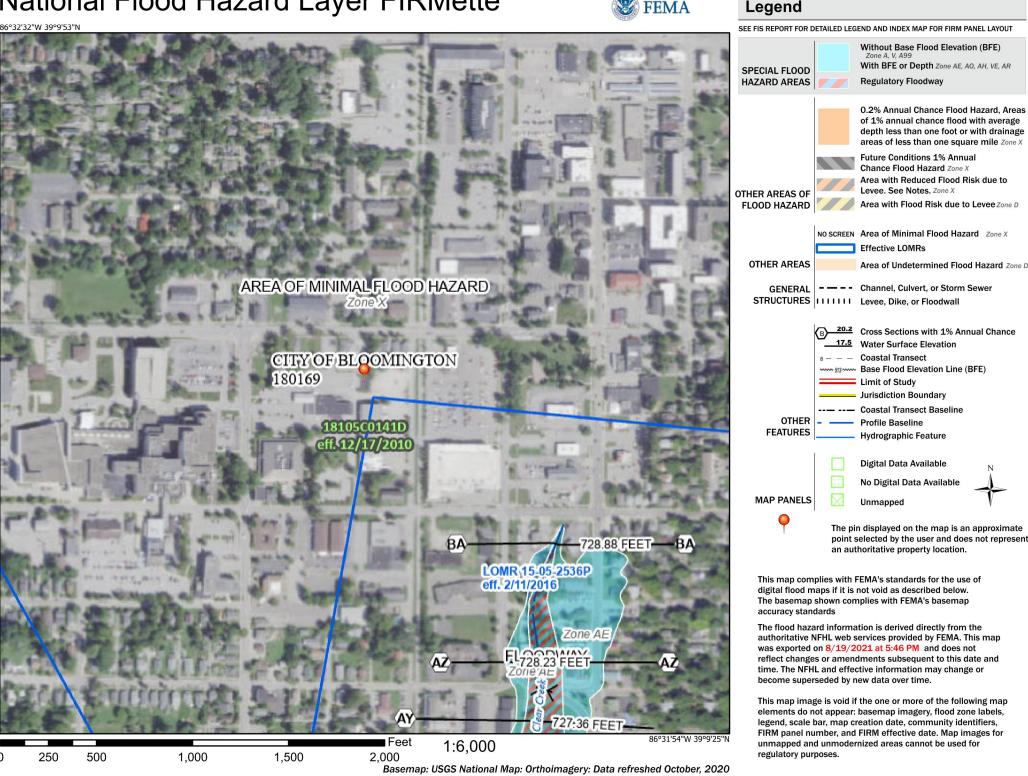
- TEMPORARY CONSTRUCTION ENTRANCES AND SILT FENCING TO BE
- INSTALLED PRIOR TO EARTH MOVING ACTIVITIES. CONTRACTOR SHALL MONITOR THE PUBLIC ROADWAYS ON A DAILY BASIS FOR MUD, SOIL, SEDIMENT AND OTHER SUCH CONSTRUCTION RELATED
- POLLUTANTS THAT HAVE BEEN TRACKED OFF-SITE. CONTRACTOR SHALL REMOVE SAID MUD, SOIL, SEDIMENT AND OTHER SUCH CONSTRUCTION RELATED POLLUTANTS FROM THE PUBLIC ROADWAY DAILY.

BULK FLUSHING WITH WATER TO REMOVE MUD AND DIRT FROM THE PUBLIC

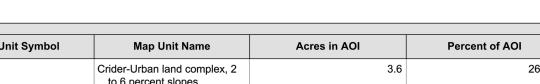
- ROADWAY SHALL NOT BE ALLOWED AT ANY TIME ANY DISTURBED AREA LEFT UNTOUCHED FOR MORE THAN 7 CONSECUTIVE CALENDAR DAYS SHALL BE TEMPORARILY SEEDED AND COVERED WITH
- STRAW. ANY SLOPE STEEPER THAN A 3FT (HORZ.) TO 1FT (VERT) SHALL BE COVERED WITH AN EROSION CONTROL BLANKET AND SECURED TO THE GROUND PER THE MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

BLOOMINGTON UNIFIED DEVELOPMENT ORDINANCE CHAPTER 20.04.080(I) VACANT LOT LANDSCAPING STANDARDS SHALL APPLY AT COMPLETION OF DEMOLITION AND GRADING.





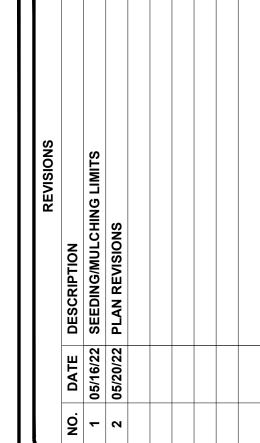


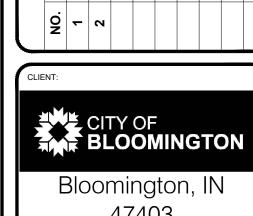


Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI		
CtB	Crider-Urban land complex, 2 to 6 percent slopes	3.6	26.5%		
CtC	Crider-Urban land complex, 6 to 12 percent slopes	4.9	35.2%		
Ua	Udorthents, loamy	5.3	38.3%		
Totals for Area of Interest	'	13.8	100.0%		

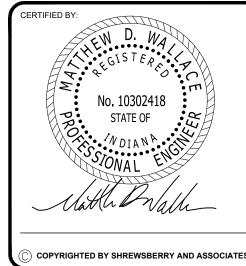
STORWATER POLLUTION PREVENTION NOTES Scale: 1" = 40'-0"











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STORMWATER POLLUTION PREVENTION NOTES

### ADDITIONAL STORMWATER POLLUTION PREVENTION MEASURES

## DESCRIPTION AND PURPOSE

TO PREVENT OR REDUCE THE AMOUNT OF CONTAMINATION TO STORMWATER RESULTING FROM VEHICLE AND EQUIPMENT MAINTENANCE BY MAINTAINING A "DRY AND CLEAN SITE". THE BEST PRACTICE WOULD BE TO PERFORM MAINTENANCE ACTIVITIES AT AN OFFSITE FACILITY WHENEVER POSSIBLE. IF THIS OPTION IS NOT FEASIBLE, THEN WORK SHOULD BE PERFORMED ONLY IN DESIGNATED AREAS, WHILE PROVIDING ADEQUATE COVER FOR MATERIALS STORED OUTSIDE, ROUTINELY CHECKING FOR LEAKS AND SPILLS, AND CONTAINING AND CLEANING UP ALL SPILLS IMMEDIATELY.

### SUITABLE APPLICATIONS

THESE PROCEDURES ARE APPLICABLE FOR ALL CONSTRUCTION PROJECTS WHERE AN ONSITE STAGING YARD AREA IS NECESSARY FOR THE STORAGE AND MAINTENANCE OF HEAVY CONSTRUCTION EQUIPMENT AND VEHICLES.

VEHICLE AND EQUIPMENT MAINTENANCE SHOULD ONLY BE PERFORMED ONSITE WHEN IT IS IMPRACTICAL TO SEND THEM OFFSITE FOR MAINTENANCE AND REPAIR. TRANSPORTING VEHICLES AND /EQUIPMENT OFFSITE SHOULD BE DONE ONLY AT THE STABILIZED CONSTRUCTION ENTRANCE/EXIT. VEHICLE STORAGE AND EQUIPMENT MAINTENANCE PROVIDES FOR A POTENTIALLY SIGNIFICANT SOURCE OF STORMWATER POLITUTION, ONSITE ACTIVITIES THAT CAN CONTAMINATE STORMWATER INCLUDE GENERAL MAINTENANCE SUCH AS CHANGING OR REPLACEMENT OF FLUIDS AND FILTERS. ENGINE REPAIR AND SERVICE, AND OUTDOOR EQUIPMENT STORAGE OR PARKING (FROM SOURCES SUCH AS THE ENGINE, OIL, FUEL, OR HYDRAULIC FLUID LEAKS).

- IF MAINTENANCE MUST OCCUR ONSITE, WORK SHOULD BE DONE ONLY IN DESIGNATED AREAS LOCATED AWAY FROM DRAINAGE COURSES. DEDICATED MAINTENANCE AREAS SHOULD BE PROTECTED FROM STORMWATER INFILTRATION AND RUNOFF. THE MAINTENANCE AREA SHOULD BE LOCATED AT LEAST 50 FEET FROM DOWNSTREAM DRAINAGE FACILITIES, WATERWAYS, AND FLOOD PLAINS.
- STORE AN ADEQUATE AMOUNT OF SPILL CLEANUP MATERIALS ONSITE WHERE THEY CAN BE READILY ACCESSIBLE.
- DRIP PANS OR ABSORBENT PADS SHOULD BE USED DURING VEHICLE AND EQUIPMENT MAINTENANCE WORK THAT INVOLVES FLUIDS, UNLESS THE MAINTENANCE WORK IS PERFORMED OVER AN IMPERMEABLE SURFACE WITHIN THE DEDICATED
- USE ABSORBENT MATERIALS ON SMALL SPILL AREAS. REMOVE THE CONTAMINATED ABSORBENT MATERIALS PROMPTLY AND
- ALL FUELING TRUCKS AND FUELING AREAS SHALL HAVE SPILL KITS AND/OR USE OTHER ADEQUATE SPILL PROTECTION
- INSPECT ONSITE VEHICLES AND EQUIPMENT DAILY AT THE BEGINNING OF EACH DAY FOR LEAKS AND REPAIR IMMEDIATELY.
- KEEP VEHICLES AND EQUIPMENT CLEAN; DO NOT ALLOW EXCESSIVE BUILD-UP OF OIL, GREASE OR SILT MATERIALS THAT MAY
- EMPLOYEES AND SUBCONTRACTORS SHALL BE TRAINED IN PROPER MAINTENANCE AND SPILL MEDIATION PROCEDURES.
- PROPERLY DISPOSE OF USED OILS, FLUIDS, LUBRICANTS, AND SPILL CLEANUP MATERIALS PER LOCAL AND STATE LAWS.
- SEPARATE AND RECYCLE WASTES SUCH AS GREASES, USED OIL, HYDRAULIC FLUID, OIL FILTERS, ANTIFREEZE, CLEANING SOLVENTS, BATTERIES, AND TRANSMISSION FLUIDS. IF THESE MATERIALS ARE STORED ONSITE, PROVIDE ADEQUATE SECONDARY CONTAINMENT AND COVERS.
- DO NOT PLACE USED OIL IN AN UNAPPROVED DUMPSTER, POUR INTO A STORM DRAIN OR WATERCOURSE, OR POUR ONTO
- DRIP PANS OR PLASTIC SHEETING SHOULD BE PLACED UNDER ALL VEHICLES AND EQUIPMENT PLACED ON WATERWAY DOCKS, BARGES, OR OTHER STRUCTURES LOCATED OVER WATER BODIES WHEN THE VEHICLE OR EQUIPMENT IS ANTICIPATED TO BE IDLE FOR MORE THAN ONE HOUR.
- DO NOT BURY OR BURN USED TIRES SOLID WASTE MANAGEMENT:

CONTAMINATE OTHER PORTIONS OF THE SITE.

# DESCRIPTION AND PURPOSE

SOLID WASTE MANAGEMENT PROCEDURES AND PRACTICES ARE DESIGNED TO PREVENT OR REDUCE THE POTENTIAL FOR DISCHARGE OF POLLUTANTS TO STORMWATER FROM SOLID OR CONSTRUCTION WASTE BY PROVIDING DESIGNATED WASTE COLLECTION AREAS AND CONTAINERS, ENSURING REGULAR DISPOSAL, AND TRAINING OF EMPLOYEES AND SUBCONTRACTORS.

THIS PRACTICE IS APPLICABLE FOR CONSTRUCTION SITES WHERE THE FOLLOWING WASTES ARE GENERATED OR STORED: SOLID WASTE GENERATED FROM DEMOLITION ACTIVITIES SUCH AS TREES OR SHRUBS, DEMOLITION OF EXISTING STRUCTURES, AND NEW BUILDING CONSTRUCTION MATERIALS INCLUDING CONCRETE, MASONRY, WOOD, METAL, GLASS, RUBBER, STYROFOAM, PAPER, PLASTIC, PIPE, ELECTRICAL COMPONENTS, AND PACKAGING MATERIALS.

### DOMESTIC WASTES INCLUDE: FOOD CONTAINERS, BEVERAGE CONTAINERS, COFFEE CUPS, PAPER BAGS, PLASTIC WRAPPERS, STYROFOAM, AND CIGARETTES

CONSTRUCTION WASTES INCLUDING BRICK, MORTAR, TIMBER, STEEL AND METAL SCRAPS, PIPE AND ELECTRICAL CUTTINGS, NON-HAZARDOUS EQUIPMENT PARTS, STYROFOAM AND OTHER MATERIALS SEND TRANSPORT AND PACKAGE CONSTRUCTION MATERIALS

# **IMPLEMENTATION**

THE FOLLOWING STEPS WILL AID IN KEEPING THE SITE CLEAN AND REDUCE THE POTENTIAL FOR STORMWATER POLLUTION:

- SELECT A DESIGNATED WASTE COLLECTION AREA ONSITE THAT IS DOWNSTREAM FROM THE STORMWATER COLLECTION SYSTEM AND AT LEAST 50 FEET AWAY FROM ALL WATERWAYS AND FLOOD PLAINS.
- INFORM THE TRASH-HAULING CONTRACTOR THAT ONLY WATERTIGHT DUMPSTERS FOR ONSITE USE WILL BE ACCEPTED.
- INSPECT DUMPSTERS WHEN THEY REACH THE SITE FOR LEAKS. REJECT ANY DUMPSTER THAT IS NOT WATERTIGHT OR IS
- PROVIDE AN ADEQUATE NUMBER OF CONTAINERS WITH LIDS OR COVERS TO KEEP RAINWATER OUT AND TO PREVENT LOSS OF MATERIALS DUE TO WINDY CONDITIONS.
- ALLOW FOR ADDITIONAL DUMPSTERS OR MORE FREQUENT PICKUPS DURING THE DEMOLITION PHASE OF CONSTRUCTION TO INSURE TRASH MATERIALS DO NOT GET STORED ON THE GROUND.
- HAVE SITE TRASH COLLECTED DAILY. DURING RAINY AND WINDY CONDITIONS IT MAY BE NECESSARY TO COLLECT TRASH MORE THAN ONCE A DAY.
- REMOVE SOLID WASTE MATERIALS PROMPTLY FROM THE SITE SINCE EROSION AND SEDIMENT CONTROL MEASURES TEND TO COLLECT TRASH WHICH HINDERS THE EFFECTIVENESS OF THE EROSION CONTROL MEASURES.

- INSURE THAT TOXIC LIQUID WASTES SUCH AS USED OILS, SOLVENTS, AND PAINTS AND CHEMICALS SUCH AS ACIDS, PESTICIDES, ADDITIVES, AND CURING COMPOUNDS ARE NOT DISPOSED OF IN DUMPSTERS DESIGNATED FOR CONSTRUCTION DEBRIS BUT ARE PROPERLY DISPOSED OF ACCORDING TO LOCAL AND STATE LAWS.
- DO NOT WASH OUT DUMPSTERS ON THE CONSTRUCTION SITE. DUMPSTER CLEANING SHOULD BE THE RESPONSIBILITY OF THE TRASH HAULING CONTRACTOR.
- ARRANGE FOR REGULAR WASTE COLLECTION BEFORE DUMPSTERS OVERFLOW. DO NOT PILE MATERIAL ABOVE THE DUMPSTER SIDE OR ALLOW MATERIAL TO DRAPE OVER THE SIDES.
- IMMEDIATELY CLEAN UP DUMPSTER SHOULD A SPILL OCCUR.
- MAKE SURE THAT CONSTRUCTION WASTE IS COLLECTED, REMOVED, AND DISPOSED OF IN A TIMELY MANOR BY AN

# INSPECTION AND MAINTENANCE

INSPECT AND VERIFY THAT PRACTICES ARE IN PLACE PRIOR TO THE START OF EACH ASSOCIATED ACTIVITY. WHILE ACTIVITIES ARE IN PROGRESS, INSPECT EACH PRACTICE WEEKLY TO VERIFY CONTINUED IMPLEMENTATION.

KEEP ADEQUATE SUPPLIES OF SPILL CLEANUP MATERIALS ONSITE. INSURE THAT ALL EMPLOYEES ARE AWARE OF MATERIAL STORAGE LOCATIONS AND ACCESS CAN BE OBTAINED TO THE MATERIALS.

MAINTAIN FLUID WASTE CONTAINERS IN LEAK PROOF CONDITION. REMOVE AND REPLACE ANY CONTAINERS FOUND TO BE

VEHICLES AND EQUIPMENT SHOULD BE INSPECTED AT THE START OF EACH DAY. IMMEDIATELY REPAIR ALL LEAKS. IT IS PREFERRED THAT THE PROBLEM VEHICLE OR EQUIPMENT BE REMOVED FROM THE PROJECT SITE FOR REPAIRS TO MINIMIZE ONSITE IMPACTS. INSPECT EQUIPMENT FOR DAMAGED HOSES AND LEAKY GASKETS DAILY. IMMEDIATELY REPAIR OR REPLACE FAULTY COMPONENTS.

VEHICLE AND EQUIPMENT FUELING PROCEDURES AND PRACTICES ARE DESIGNED TO PREVENT FUEL SPILLS OR LEAKS AND REDUCE OR ELIMINATE CONTAMINATION OF SOILS AND STORMWATER. THIS CAN BE ACCOMPLISHED BY USING OFFSITE FACILITIES, FUELING IN DESIGNATED ONSITE AREAS ONLY, ENCLOSING OR COVERING STORED MATERIAL, UTILIZING SPILL CONTROLS, AND TRAINING EMPLOYEES AND SUBCONTRACTORS IN PROPER FUELING

ONSITE VEHICLE AND EQUIPMENT FUELING SHOULD ONLY BE DONE WHEN IT IS NOT FEASIBLE TO SEND VEHICLES AND EQUIPMENT OFFSITE FOR FUELING. VEHICLES AND EQUIPMENT ENTERING AND EXITING THE SITE SHOULD ALWAYS BE DONE AT THE STABILIZED

- THE USE OF OFFSITE FUELING STATIONS IS ENCOURAGED WHENEVER FEASIBLE. THESE FACILITIES ARE EQUIPPED TO HANDLE FUELING AND SPILLS PROPERLY. PERFORMING THIS WORK OFFSITE MAY BE MORE ECONOMICAL BY ELIMINATING THE NEED FOR A SEPARATE DESIGNATED FUELING AREA AND CONTAINMENT MEASURES ONSITE.
- DISCOURAGE EMPLOYEES FROM "TOPPING-OFF" FUEL TANKS TO PREVENT UNNECESSARY SPILLS.
- ABSORBENT SPILL CLEANUP MATERIALS AND SPILL KITS SHALL BE AVAILABLE IN ONSITE FUELING AREAS AND ON MOBILE FUELING TRUCKS. PROPERLY DISPOSE OF USED MATERIALS AFTER USE.
- ABSORBENT PADS OR DRIP PANS SHOULD BE USED DURING VEHICLE AND EQUIPMENT FUELING UNLESS THE FUELING IS PERFORMED OVER AN IMPERVIOUS SURFACE WITHIN A DEDICATED FUELING AREA.
- ABSORBENT MATERIALS FOR SMALL SPILLS SHALL BE USED. DO NOT WASH OR BURY THE SPILL MATERIAL AS THIS ONLY RESULTS IN ADDITIONAL REMEDIATION REQUIREMENTS. REMOVE THE CONTAMINATED ABSORBENT MATERIALS PROMPTLY AND DISPOSE OF PROPERLY ACCORDING TO LOCAL AND STATE LAWS.
- EQUIPMENT TO DESIGNATED ONSITE FUELING AREAS WHERE ADEQUATE PREVENTION AND SPILL CONTAINMENT MATERIALS
- EMPLOYEES AND SUBCONTRACTORS SHOULD BE TRAINED IN PROPER FUELING AND CLEANUP PROCEDURES.
- DEDICATED FUELING AREAS SHOULD BE PROTECTED FROM STORMWATER INFILTRATION AND RUNOFF. AND SHOULD BE LOCATED AT LEAST 50 FT AWAY FROM DOWNSTREAM DRAINAGE FACILITIES, WATERWAYS, AND FLOOD PLAINS. FUELING MUST BE PERFORMED IN A LEVEL AREA.
- PROTECT FUELING AREAS WITH BERMS OR DIKES TO PREVENT INFILTRATION, RUNOFF, AND TO CONTAIN SPILLS.
- NOZZLES USED IN VEHICLE AND EQUIPMENT FUELING SHOULD BE EQUIPPED WITH AN AUTOMATIC SHUTOFF TO CONTROL SPILLS AND DRIPS. FUELING OPERATIONS SHOULD BE MONITORED BY THE FUELING OPERATOR AT ALL TIMES.
- FEDERAL, SLATE, AND LOCAL REQUIREMENTS SHOULD BE OBSERVED FOR ANY TEMPORARY ABOVE GROUND STORAGE

# COLLECTION, STORAGE, AND DISPOSAL OF MATERIALS:

# LITTERING ON THE PROJECT SITE IS PROHIBITED.

TO PREVENT CLOGGING OF THE STORM DRAINAGE SYSTEM LITTER AND DEBRIS SHOULD BE REMOVED FROM DRAINAGE GRATES. TRASH RACKS. AND DITCHES DAILY

TRASH RECEPTACLES SHOULD BE PROVIDED IN THE CONSTRUCTION STAGING AREAS, FIELD TRAILER AREAS, AND AREAS UTILIZED

DOMESTIC TRASH FROM WORK AREAS WITHIN THE CONSTRUCTION LIMITS OF THE SITE SHOULD BE COLLECTED AND PLACED IN WATERTIGHT DUMPSTERS WEEKLY AT A MINIMUM. DOMESTIC TRASH SHOULD BE COLLECTED FROM THE SITE REGARDLESS OF THE SOURCE. COLLECTED LITTER AND DEBRIS SHOULD NOT BE PLACED IN OR NEXT TO THE STORMWATER DRAINAGE SYSTEMS OR

DUMPSTERS OF SUFFICIENT SIZE AND QUANTITY SHOULD BE PROVIDED TO CONTAIN THE SOLID WASTE GENERATED BY THE

DUMPSTERS SHOULD BE REMOVED FROM THE PROJECT SITE ONCE THEY BECOME FULL AND THE CONTENTS DISPOSED OF BY THE TRASH HAULING CONTRACTOR. CONSTRUCTION DEBRIS AND WASTE SHOULD BE REMOVED FROM THE SITE WEEKLY OR MORE FREQUENTLY AS REQUIRED. THE

CONTRACTOR SHOULD USE THEIR BEST JUDGMENT IN ANTICIPATING WHEN A DUMPSTER WILL BE FULL AND SCHEDULE A PICKUP IN ADVANCE OF THE DUMPSTER BEING FULL TO PREVENT OVER TOPPING OF THE DUMPSTER OR PLACEMENT OF EXCESS MATERIAL ON

CONSTRUCTION MATERIAL VISIBLE TO THE PUBLIC SHOULD BE STORED OR STACKED IN AN ORDERLY MANNER AWAY FROM THE STORM DRAINAGE SYSTEM, WATERWAYS, AND FLOOD PLAIN.

STORMWATER RUNOFF SHOULD BE DIVERTED FROM STORED SOLID WASTE THROUGH THE USE OF BERMS, DIKES, OR OTHER TEMPORARY DIVERSION STRUCTURES OR THROUGH THE USE OF MEASURES TO ELEVATE THE WASTE COLLECTION DUMPSTER. SOLID WASTE STORAGE AREAS SHOULD NOT BE LOCATED IN AREAS PRONE TO FLOODING OR PONDING AND SHOULD BE LOCATED AT LEAST 50 FT FROM STORM DRAINAGE SYSTEMS AND WATERWAYS.

INSPECT AND VERIFY THAT ACTIVITY-BASED PRACTICES ARE IN PLACE PRIOR TO THE START OF CONSTRUCTION IN THAT AREA. INSPECT EACH PRACTICE WEEKLY TO VERIFY IMPLEMENTATION.

INSPECT CONSTRUCTION WASTE COLLECTION AREA REGULARLY TO INSURE ALL WASTE MATERIALS ARE BEING DISPOSED OF

### ARRANGE FOR REGULAR WASTE COLLECTION WITH A TRASH HAULING CONTRACTOR. CONCRETE AND MASONRY WASHOUT AREAS

THE FOLLOWING STEPS WILL HELP REDUCE STORMWATER POLLUTION FROM CONCRETE AND MASONRY WASTES: DISCUSS THE CONCRETE MANAGEMENT TECHNIQUES DESCRIBED, SUCH AS HANDLING OF CONCRETE WASTE AND WASHOUT AREAS WITH THE READY-MIX CONCRETE SUPPLIER BEFORE ANY DELIVERIES ARE MADE. DISCUSS MASONRY WASTE MANAGEMENT TECHNIQUES WITH THE MASONRY CONTRACTORS FOR THE CONTROL OF CEMENT MIXER WASHOUT AREAS.

INCORPORATE REQUIREMENTS FOR CONCRETE AND MASONRY WASTE MANAGEMENT INTO MATERIAL SUPPLIER AND SUBCONTRACTOR AGREEMENTS.

STORE DRY AND LIQUID MATERIALS IN A COVERED AREA AWAY FROM DRAINAGE AREAS. PREVENT MASONRY SAND STOCKPILE FROM WASHING INTO STREETS, STORM DRAINAGE SYSTEMS, AND WATERWAYS.

AVOID MIXING EXCESS AMOUNTS OF FRESH CONCRETE OR MORTAR.

PERFORM WASHOUT OF CONCRETE TRUCKS OFFSITE OR IN DESIGNATED AREAS ONLY.

PERFORM MORTAR MIXER WASHOUT IN ONE DESIGNATED AREA FOR THE DURATION OF THE PROJECT.

DO NOT WASH OUT CONCRETE TRUCKS OR MORTAR MIXERS INTO STORM DRAINS, OPEN DITCHES, STREETS, OR WATERWAYS. DO NOT ALLOW EXCESS CONCRETE OR MORTAR TO BE DUMPED ONSITE, EXCEPT IN DESIGNATED AREAS.

-LOCATE WASHOUT AREA AT LEAST 50 FEET FROM STORM DRAINS, OPEN DITCHES, OR WATERWAYS.

-DO NOT ALLOW RUNOFF TO LEAVE THE DESIGNATED AREA BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH FOR LIQUID AND SOLID WASTE.

-WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND BE DISPOSED OF PROPERLY. -AVOID CREATING UNNECESSARY RUNOFF BY DRAINING WATER FROM THE WASHOUT AREA INTO A BERMED, LEVEL AREA WHEN WASHING CONCRETE TO REMOVE FINE PARTICLES AND EXPOSE THE AGGREGATE.

-DO NOT WASH SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO THE STREET OR STORM DRAIN SYSTEM. COLLECT AND RETURN SWEEPINGS TO AGGREGATE BASE STOCKPILE OR DISPOSE OF PROPERLY.

### EROSION AND SEDIMENT CONTROL SEQUENCE

- ASSIGN AN ON-SITE PERSON WITH THE DAILY RESPONSIBILITY AND AUTHORITY TO ENSURE THAT EROSION/SEDIMENT CONTROL PRACTICES ARE INSTALLED ACCORDING TO THIS SEQUENCE SCHEDULE.
- 2. CONTACT INDIANA UNDERGROUND PLANNED PROTECTION SYSTEMS, INC. ("HOLEY MOLEY") FOR UNDERGROUND UTILITY LOCATIONS. (1-800-382-5544). IN ADDITION, A PRE-CONSTRUCTION CONFERENCE MUST BE HELD AT LEAST 48 HOURS BEFORE ANY ADDITIONAL LAND DISTURBANCE TAKES PLACE.
- 3. BEFORE OPENING UP THE SITE, FIRST EVALUATE, MARK AND PROTECT IMPORTANT TREES AND ASSOCIATED ROOT ZONES. UNIQUE AREAS TO BE PRESERVED (I.E. WETLANDS), OR EXISTING VEGETATION SUITABLE FOR USE AS FILTER STRIPS
- 4. INSTALL SILT FENCING, SEDIMENT BASINS OR TRAPS AROUND THE PERIMETER OF THE SITE AND DIVERSIONS ABOVE THE SITE TO DIRECT WATER FROM UNDISTURBED AREAS AWAY FROM THE SEDIMENT TRAPS WHILE CONVEYING SEDIMENT- LADEN RUNOFF FROM DISTURBED AREAS TO THE TRAPS.
- 5. INSTALL AN ADEQUATE AND STABLE CONSTRUCTION ENTRANCE / EXIT DRIVE FROM THE CONSTRUCTION SITE TO KEEP MUD AND SEDIMENT OFF PUBLIC ROADS. DUST SHALL BE KEPT TO A MINIMUM BY UTILIZING SPRINKLING, CALCIUM CHLORIDE, VEGETATIVE COVER, SPRAY ON ADHESIVES OR OTHER APPROVED METHODS.
- 6. IDENTIFY CONSTRUCTION STAGING AREA, MATERIAL STORAGE AREA, CONCRETE AND MASONRY WASHOUT AREAS, DUMPSTER AREA. EACH AREA SHALL PROPERLY PROTECTED AND DELINEATED PRIOR TO CONSTRUCTION.
- 7. ONCE EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE, BEGIN LAND CLEARING FOLLOWED IMMEDIATELY BY GRADING. DO NOT LEAVE LARGE AREAS UNPROTECTED FOR MORE THAN 7 DAYS.
- 8. START MASS EARTHWORK INCLUDING TOPSOIL STRIPING AND STOCKPILE.
- 9. AS GRADING PROGRESSES, INSTALL ADDITIONAL TRAPS, SILT FENCES, SLOPE DRAINS, TEMPORARY DIVERSIONS, AND OTHER RUNOFF CONTROL MEASURES AT APPROPRIATE LOCATIONS TO KEEP SEDIMENT CONTAINED ON-SITE.
- 10. INSTALL THE MAIN RUNOFF CONVEYANCE SYSTEM WITH INLET AND OUTLET PROTECTION DEVICES TO CONVEY STORM RUNOFF THROUGH THE SITE WITHOUT CREATING GULLIES AND TO PREVENT DAMAGE TO OPEN CHANNELS. SIDES OF SWALES, MOUNDS AND PONDS TO BE SEEDED AND MULCHED UPON COMPLETION. TEMPORARY SEEDING SHALL BE REQUIRED FOR ALL SWALES AND DISTURBED AREAS THAT CAN NOT BE FINAL SEEDED WITHIN A TIME PERIOD THAT WILL PREVENT SLOPE EROSION. FOR TEMPORARY SEEDING, THE CONTRACTOR SHALL UTILIZE A FAST GROWING SEED OF EITHER OATS, ANNUAL RYE GRASS, WHEAT OR RYE DEPENDING ON TIME OF YEAR. DISTURBED AREAS SHALL BE KEPT TO A MINIMUM
- 11. AS SOON AS THE STORM DRAIN SYSTEM IS FUNCTIONAL, INSTALL DRAIN INLET PROTECTIONS, WHICH TRAP SEDIMENT ON-SITE IN SHALLOW POOLS WHILE ALLOWING HIGH WATER FLOWS TO ENTER THE SYSTEM.
- 12. INSTALL SANITARY SEWERS AND OTHER UTILITIES.
- 13. COMPLETE PARKING LOT AND ROADWAY GRADING FOLLOWED BY AGGREGATE LAYERS AND CURBING.
- 14. IMMEDIATELY AFTER GRADING, APPLY SURFACE STABILIZATION PRACTICES ON ALL GRADED AREAS, USING PERMANENT MEASURES IN ACCORDANCE WITH THE EROSION CONTROL PLAN. HOWEVER, IE WEATHER DELAYS PERMANENT STABILIZATION, TEMPORARY SEEDING AND/OR MULCHING MAY BE NECESSARY AS A STOP-OAP MEASURE. ALSO STABILIZE (USING TEMPORARY SEEDING/MULCHING OR OTHER SUITABLE MEANS) ANY DISTURBED AREA WHERE ACTIVE CONSTRUCTION WILL NOT TAKE PLACE FOR 30 WORKING DAYS.
- AFTER CONSTRUCTION AND FINAL GRADING, LANDSCAPE AND PERMANENTLY STABILIZE ALL DISTURBED SITES, INCLUDING BORROW AND DISPOSAL AREAS. ALSO REMOVE TEMPORARY RUNOFF CONTROL STRUCTURES AND ANY UNSTABLE SEDIMENT AROUND THEM, AND VEGETATE THOSE AREAS.
- 16. MAINTAIN ALL EROSION AND SEDIMENT CONTROL PRACTICES UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

- 1.1 AT BEGINNING OF SITE WORK
- A. PRIOR TO GENERAL STRIPPING TOPSOIL AND EXCAVATING, INSTALL SILT FENCE WHERE INDICATED.
- B. CONSTRUCT EROSION CONTROL DEVICES WHERE INDICATED ON DRAWINGS DURING ROUGH GRADING AS GRADING PROGRESSES. C. TOPSOIL MUST BE PRESENT TO ENSURE GROWTH.
- D. TEMPORARILY SEED BASIN SLOPES, TOPSOIL STOCKPILES, AND AREAS DISTURBED BY CONSTRUCTION.
- 1. SEEDING TIMES AND RATES: A. MAY 15 TO SEPTEMBER 15; ANNUAL RYE GRASS AT 40 LBS./ACRE.
- B. AUGUST 15 TO NOVEMBER 15; RYE (GRAIN) OR WHEAT AT 2 BUSHELS/ACRE.
- C. MARCH 1 TO MAY 15; OATS AT 3 BUSHELS/ACRE. 2. FERTILIZER: COMMERCIAL ANALYSIS 12/12/12 APPLIED AT A RATE OF 600#/ACRE.
- A. APPLY LIME TO RAISE PH TO THE LEVEL NEEDED FOR SPECIES BEING SEEDED. B. WORK FERTILIZER AND LIME INTO THE SOIL TO A DEPTH OF 2-3 IN. 3. ALL HYDROSEEDING SHALL BE IN ACCORDANCE WITH THE PRECEDING REQUIREMENTS.
- 4. RESEED AS REQUIRED UNTIL GOOD STAND OF GRASS IS ACHIEVED.
- 1.2 DURING CONSTRUCTION PERIOD
- A. MAINTAIN BASINS, DIKES, TRAPS, STONE FILTERS, SILT FENCES, ETC. B. INSPECT REGULARLY ESPECIALLY AFTER RAINSTORMS.
- REPAIR OR REPLACE DAMAGED OR MISSING ITEMS. D. AFTER ROUGH GRADING, SOW TEMPORARY GRASS COVER OVER EXPOSED EARTH AREAS NOT DRAINING INTO A PROTECTED DEVICE
- E. CONSTRUCT INLETS AS SOON AS POSSIBLE. 1. INSTALL SILT FENCE OR STRAW BALE BARRIERS OR 1/2" SLOTTED BARREL AT EACH NEW INLET, AS NECESSARY TO CONTROL EROSION.
- A. PROVIDE NECESSARY SWALES AND DIKES TO DIRECT WATER TOWARDS A PROTECTED DEVICE B. DO NOT DISTURB EXISTING VEGETATION (GRASS AND TREES) OUTSIDE LIMITS OF CONSTRUCTION.
- C. REMOVE SEDIMENT FROM BEHIND SILT FENCES WHEN SEDIMENT REACHES ONE-FOURTH FABRIC HEIGHT. D. TOPSOIL AND FINE GRADE SLOPES AND SWALES, ETC. SEED AND MULCH AS SOON AS POSSIBLE IN AREAS AS THEY BECOME READY.
- 1.3 NEAR COMPLETION OF CONSTRUCTION
- A. ELIMINATE EROSION CONTROL DEVICES EXCEPT INLET PROTECTION. B. GRADE TO FINISHED OR EXISTING GRADES.
- C. FINF GRADE REMAINING EARTH AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. D. TOPSOIL MUST BE A MINIMUM OF 4" TO ENSURE GROWTH. E. PERMANENT SEED: MARCH 1 TO MAY 15 AND AUGUST 10 TO OCTOBER 15. (DATES MAY VARY AT DISCRETION OF LANDSCAPE ARCHITECT DEPENDING ON WEATHER
  - CONDITIONS.)
- F SOIL PREPARATION 1. SOIL SURFACE MUST BE FREE OF ROCKS, DEBRIS, AND OTHER FOREIGN MATERIALS.
- 2. SOILS MUST HAVE PROPER MOISTURE CONTROL TO ASSURE PROPER GERMINATION AND GROWTH. 3. SOIL SURFACE MUST BE COMPACTED TO A DEPTH OF AT LEAST 6 INCHES.
- 4. SOIL PREPARATION DEPENDS ON SOIL CONDITIONS AT TIME OF SEEDING. VARIOUS TOOLS MAY BE NECESSARY TO ACHIEVE SURFACE
- 5. SURFACE OF SOIL SHALL BE LEVEL AND LARGE VOIDS ELIMINATED TO APPLYING FERTILIZER, LIME AND SEED. G. APPLYING FERTILIZER, LIME AND SEED.
- 1. WORK FERTILIZER AND LIME INTO SOIL TO A DEPTH OF 2 3 INCHES. 2. APPLY SEED CAREFULLY AND COVER SEED WITH 1/4 INCH SOIL, APPLY SEED CAREFULLY AND AVOID COVERING SEED MORE THAN
- 3. APPLY MULCH AT RATE OF 2 TONS PER ACRE FOLLOWING SEEDING.
- 4. WATER AS NECESSARY TO ENSURE ADEQUATE MOISTURE FOR GERMINATION AND GROWTH. 5. RESEED AS NECESSARY UNTIL A GOOD STAND OF GRASS IS ACHIEVED.
- 1. FERTILIZER: COMMERCIAL ANALYSIS 12/12/12 OR EQUIVALENT APPLIED AT A RATE OF 600 POUNDS PER ACRE.
- 2. LIME: APPLY AGRICULTURAL LIME TO RAISE PH TO THE LEVEL NEEDED FOR SPECIES BEING SEEDED. SOIL TEST MAY BE REQUIRED TO DETERMINE RATE.
- 3. SWALES/SLOPES: BLENDED MIXTURE OF SEED SHALL BE APPLIED AT THE RATE OF 110 POUNDS PER ACRE. THE MIX SHALL CONSIST OF 40 POUNDS MUSTANG TURF-TYPE TALL FESCUE, 30 POUNDS BANFF OR WABASH KENTUCKY BLUEGRASS.
- 4. GRADED AREAS ADJACENT TO PAVEMENT: BLENDED MIXTURE OF SEED SHALL BE APPLIED AT A RATE OF 90 POUNDS PER ACRE.
- THE MIXTURE SHALL CONSIST OF 35 POUNDS MUSTANG TURF-TYPE TALL FESCUE. 30 POUNDS FIESTA PERENNIAL 5. APPLY MULCH STRAW AT RATE OF 2 TONS PER ACRES IMMEDIATELY AFTER SEEDING. THE STRAW MUST BE EVENLY DISTRIBUTED LOOSELY OVER THE ENTIRE AREA. "SLABS" OF STRAW MUST BE REDISTRIBUTED OR IT WILL KILL YOUNG SEEDLINGS. ON LARGE OPEN AREAS THE MULCH MUST BE SECURED TO SOIL BY A TACK OR MECHANICAL MEANS TO PREVENT WIND ACTION ON MULCH.

# PART 2 - COMPLETION

- 2.1 MAINTENANCE A RESEED ALL AREAS THAT DON'T TAKE.
- B. APPLY A MAINTENANCE FERTILIZER (\*) WITHIN 6 MONTHS OF ACQUIRING A GOOD STAND. C. AVOID TRAFFIC ON AREA UNTIL AREA IS WELL PROTECTED AND STABLE. D. WATER AS NECESSARY TO ENSURE ADEQUATE GROWTH AND DEVELOPMENT
- \*MAINTENANCE FERTILIZER APPLY 200 LBS OF 12-12-12 OR EQUIVALENT.

SEASONAL SOIL PROTECTION CHART STABILIZATION PRACTICE: PERMANEN<sup>\*</sup> SEEDING DORMANT SEEDING TEMPORAR' SEEDING SODDING MULCHING

A = KENTUCKY BLUEGRASS 40 lbs/ACRE: CREEPING RED FESCUE 40 lbs/ACRE; PLUS 2 TONS STRAW MULCH/ACRE, OR ADD ANNUAL RYE GRASS 20 lbs/ACRE.

B = KENTUCKY BLUEGRASS 60 lbs/ACRE; CREEPING RED FESCUE 60 lbs/ACRE; PLUS 2 TONS STRAW MULCH/ACRE, OR ADD ANNUAL RYE GRASS 30 lbs/ACRE.

C = SPRING OATS 3 BUSHEL/ACRE.

F = SOD

- D = WHEAT OR RYE 2 BUSHEL/ACRE E = ANNUAL RYE GRASS 40 lbs/ACRE. (1 lb/1000 sq. ft.)
- G = STRAW MULCH 2 TONS/ACRE
- \*/I/\* = IRRIGATION NEEDED DURING JUNE, JULY, AND/OR SEPTEMBER.\*\* = IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD.

STORMWATER POLLUTION PREVENTION NOTES

05/20/2022

RDR

**PERMIT SET** 

PROJECT NO.:

CHECKED BY:

21-0049

MDW

528 North Walnut Street Bloomington, Indiana 47404 (812) 332-8030

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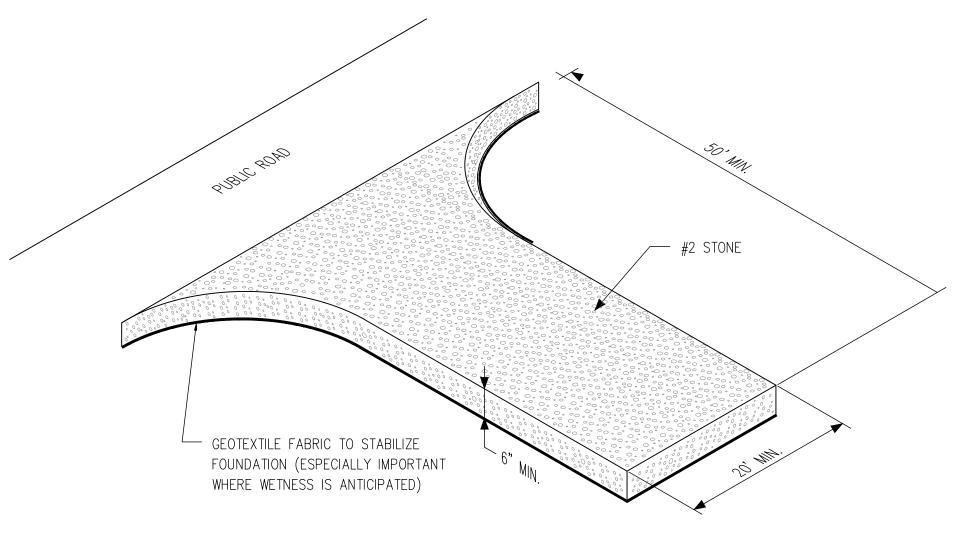
SE

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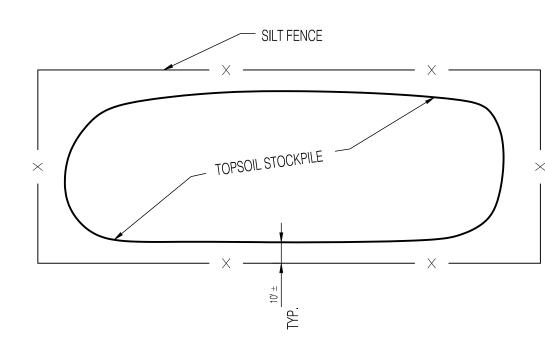
OPEWELL

CITY OF BLOOMINGTO LOOMINGTON, INDIANA

STORWATER POLLUTION PREVENTION NOTES

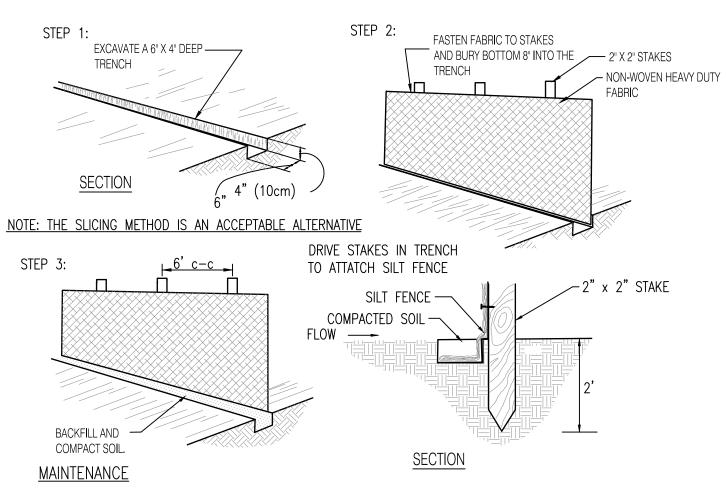


**TEMPORARY** CONSTRUCTION ENTRANCE NO SCALE



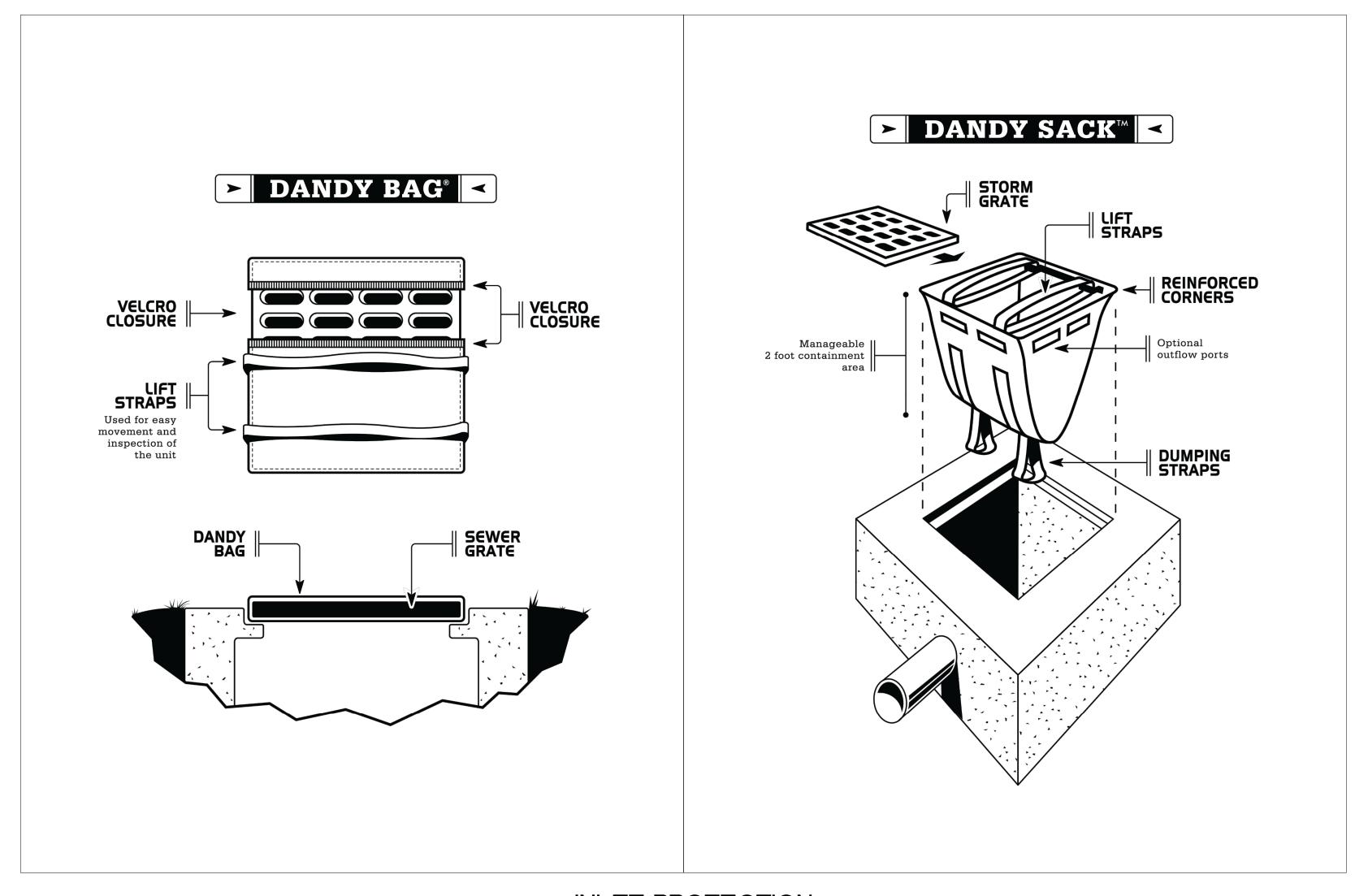
TEMPORARY TOPSOIL STOCKPILE

NO SCALE



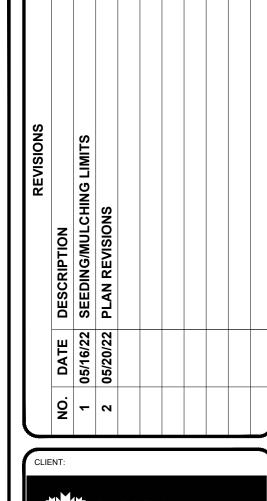
- 1. INSPECT THE SILT FENCE PERIODICALLY AND AFTER EACH STORM EVENT.
- 2. IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY.
- 3. REMOVE DEPOSITED SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT OR IS CAUSING THE FABRIC TO BULGE.
- 4. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEAN OUT.
- 5. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE THE FENCE AND SEDIMENT DEPOSITS, BRING THE DISTURBED AREA TO GRADE, AND STABILIZE.





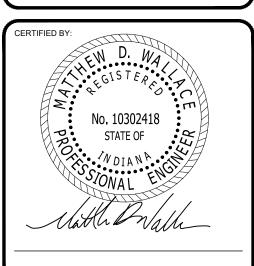
INLET PROTECTION **DETAILS** NO SCALE











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