Fill Management Plan

Fish Road Reclamation Project

Off Fish Road, Assessor Map 229, Lot 158
Dudley, Massachusetts
Revision date: March 21, 2022

Introduction

This Fill Management Plan (FMP) was prepared by W.L. French Excavating Corp. (W.L. French) in support of the Fish Road Reclamation Project located off Fish Road in Dudley, Massachusetts. The site locus is shown on **Figure 1**. Several areas of the property have previously been mined and quarrying operations are still active. Areas of the property that have been mined will be reclaimed and restored in several phases under COMM-15-001; *Interim Policy on the Reuse of Soil for Large Reclamation Projects*.

The Phase 1 Reclamation Area was previously approved by MassDEP under an Administrative Consent Order (ACO) on November 5, 2020. Phase I of the reclamation project is ongoing and includes the import of approximately 555,000 tons of soil as shown on **Figure 2**. This FMP has been revised to include the Phase II Reclamation Area which includes the import of an additional 725,000 tons of soil as shown on the Proposed Grading Plan included as **Figure 3**. The Existing Topography Plan is included as **Figure 4**

Anticipated sources of fill material include large volumes of excess soil from excavation and construction projects in Massachusetts with elevated levels of naturally occurring arsenic. The intended fill materials include native and reworked sand, gravel, rock and clay. It is anticipated that Phase I of the reclamation project will be completed by 2024 and the Phase II Area by 2027 based on available sources of fill materials. Once completed, the fill area will be capped with topsoil overlaying <RCS-1 soil as shown on **Figure 5.**

Soil intended for reuse in the filling operation must meet Acceptance Criteria established for this location. Testing of soil prior to acceptance and/or additional documentation of the soil source(s) with background information is required and is described herein.

This plan has been discussed with Massachusetts Department of Environmental Protection (MassDEP) personnel and various municipal officials from the Town of Dudley including the Board of Selectmen, Board of Health, and Conservation Commission. These discussions provided relevant information regarding the filling operations associated with the reclamation

project described within this plan. Therefore, these officials have general awareness of this project and ongoing site activities.

Parties Involved

Several parties will be involved with the placement of fill material associated with the Fish Road Reclamation Project.

Project Location:
Fish Road Reclamation Project
Off Fish Road
Assessor Map 229, Lot 158
Dudley, Massachusetts 01571

Project Proponents
Rampco French Joint Venture, LLC (FID 001221252)
14 Sterling Road
North Billerica, Massachusetts 01862

Soil Acceptance, Approvals, and Management/Oversight of Filling Operations:
W.L. French Excavation Corporation
14 Sterling Road
North Billerica, Massachusetts 01862
Phone: 978-663-2623
William L. French Jr., President
Jarrett Everton, Director of Environmental Services
Email: jeverton@wlfrench.com

Property Owner:
James E. Zajac and Cressa L. Zajac, Trustees
146 SE Crosspoint Drive
Port St. Lucie, Florida 34983

Project Daily Filling Operations Manager:
Rampco Construction Co., Inc.
120 Schofield Avenue
Dudley, Massachusetts 01571
Jonathan Androlewicz
508-400-3317

Independent LSP Review and Approval of Submittal Packages:
Benson R. Gould, LSP, LEP
CMG Environmental, Inc.
67 Hall Road, Sturbridge, Massachusetts 01566
Phone: 774-241-0906

Third Party QAQC Inspector:
Jeff Larson, LSP, LEP
EnviroTrac Ltd.
169 Daniel Webster Highway
Nashua, NH
508-517-2124

Emergency Contact:
Rampco Construction Co., Inc.
120 Schofield Avenue
Dudley, Massachusetts 01571
Jonathan Androlewicz
508-400-3317

Site Description

The fill operations associated with the Fish Road Reclamation Project will occur at the Fish Road Gravel Pit located off Fish Road in Dudley, Massachusetts. The Phase 1 Area includes 6 acres and the Phase II Area includes 11 acres which are located in the Southern portion of the 176-Acre property. The property is located in the southwestern portion of Dudley near the border with Southbridge, Massachusetts and Woodstock, Connecticut.

The Fish Road Reclamation Project site is readily accessed from Fish Road via West Dudley Road. Route 131 (Southbridge Road) is located approximately 0.9 miles south of the entrance to the Fish Road Reclamation Project site. Access to Interstate 395 is located approximately 8.5 miles east of the project site via Route 131 and Route 197. Access to Interstate 84 is located approximately 8 miles to the west of the project site via Route 131.

Wooded areas are located on the northern, western and eastern portions of the property. An agricultural hay field is located in the southern portion of the site abutting the Quinebaug River. The Grand Trunk Rail Trail traverses the southern portion of the site, just north of the Phase 1 Area.

The Dudley Assessor's Office records identify the Fish Road Reclamation Project by parcel Map 229, Lot 158. The Assessor's Office indicates that the parcel is owned by a trust operated by

James E. Zajac and Cressa L. Zajac. The Fish Road Reclamation Project site consists of an irregular-shaped parcel of land with a total plan area of approximately 176 acres zoned for industrial use (IND-130) and Adult Entertainment to the north of the Grand Trunk Rail Trail and residential use (RES-87) to the south.

A high yield aquifer is located on the property, partially within the southern portion of the Phase II Area as shown on the MassDEP BWSC Phase 1 Site Assessment Map included as **Figure 6**. It should be noted that the aquifer is not located in a groundwater protection area according to the Town of Dudley Zoning Map. Other resource areas were not identified within the Phase 1 Area of filling and grading. A FEMA 100-year Floodplain is located in the southern portion of the property along the bank of the Quinebaug River. No MassDEP Disposal Sites were identified at the site or within approximately 0.25 miles.

The nearest public water supply wells are two non-community groundwater wells (2080004-02G & 2080005-01G) located approximately 3,000 feet to the northeast. There are no other public water supply wells in proximity to the property according to the MassDEP GIS map. Private wells are also in operation in Dudley. Specifically, the nearest private wells are located across the Quinebaug River along Southbridge Road, approximately 500 feet to the south of the Phase I Area and over 800 feet to the south of the Phase II area.

The property is located in an area without municipal water supply, which means DEP categorizes it as a 'Potential Drinking Water Source Area' per the Massachusetts Contingency Plan (MCP) definition at 310 CMR 40.0006(12). Therefore, the applicable groundwater reporting category is RCGW-1 and soil reporting category RCS-1.

Wetlands at the property were delineated and flagged in the field by Three Oaks Environmental. An Abbreviated Notice of Resource Area Delineation (ANRAD) was filed with MassDEP on May 1, 2019 for construction activities associated with the Phase I Area. An Order of Resource Area Delineation (ORAD) was subsequently issued by the Dudley Conservation Commission. Phase I construction and reclamation activities will not occur within 50' of wetlands located at the property. Erosion control measures have been installed at the site to protect wetland resources.

A second Request for Determination was filed with the Dudley Conservation Commission on November 10, 2019 regarding resource areas in the Phase II Reclamation Area. All wetland resources, vernal pools and intermittent streams in the Phase II Area were determined to be non-jurisdictional due to historic mining operations and therefore not located in an area subject to protection under the Wetland Protection Act or the Buffer Zone. A Negative

Determination was subsequently issued by the Dudley Conservation Commission November 20, 2019. Erosion control measures have been installed at the site to protect wetland resources.

A review of the Massachusetts Natural Heritage & Endangered Species Program (NHESP) online database was conducted. The Phase I and II Areas are not located within a mapped Priority Habitat for Rare Species or an Estimated Habitat for Rare Species.

A total of eight groundwater wells were installed in conjunction with the Fish Road Reclamation project to establish background levels in groundwater at the project site. Four of the wells are located in the Phase I area of the site and four are located in the Phase II area. A bedrock irrigation well is also located at the site; however, it does not have a pump installed and is currently not in use. The approximate locations of the Phase I wells are shown on **Figure 2**, the Phase II wells and irrigation well are shown on **Figure 3**. Groundwater flow appears to be to the south-southeast towards the Quinebaug River.

The groundwater monitoring wells will be sampled on an annual basis throughout the duration of the Fish Road Reclamation Project. Groundwater analytical results indicate that arsenic was detected at the site exceeding the RCGW-1 standard of 10 µg/L. Soluble arsenic identified in at the site is consistent with the known condition of naturally-occurring elevated arsenic in site soil and bedrock and is thus exempt from DEP reporting per 310 CMR 40.0317(22). A final sampling event will be performed two years after completion of the Fish Road Reclamation Project.

Soil Acceptance Criteria

Soil Acceptance Criteria have been established for various constituents in soil intended for use as fill material at the Fish Road Reclamation Project in compliance with the Similar Soils Provision. The Acceptance Criteria were established to be protective of surrounding natural resource areas including nearby private wells (<500'), wetland areas and the nearby Quinebaug River, construction workers at the site, visitors, and surrounding residents.

Arsenic testing has been conducted at the property to establish background concentrations because the property is known to be located in the "arsenic belt" of Worcester County. Laboratory results confirmed arsenic is present at the property in concentrations ranging from 21.6 mg/kg to 105 mg/kg in the Phase I Area and 2.77 mg/kg to 383 mg/kg in the Phase II Area. As such, the maximum background concentration of arsenic has been established at 105 mg/kg in the Phase I Area and 383 mg/kg in the Phase II Area. The arsenic acceptance criteria of less than 100 mg/kg applies to both the Phase I and Phase 2 area and is applicable only to soil containing naturally occurring arsenic that meets the notification exemption at

310 CMR 40.0317(22), which applies to arsenic in Boston Blue Clay or arsenic in an area documented by the U.S. Geological Survey or in other scientific literature as an area of elevated arsenic measured in soil or groundwater that (a) is consistently present in the environment at and in the vicinity of the sampling location; (b) is solely attributable to natural geologic or ecologic conditions; and (c) has not been mobilized or transferred to another environmental medium or increased in concentration in an environmental medium as a result of anthropogenic activities.

Ash and/or Solid Waste must only be present in de minimus quantities not to exceed 5% by volume. Any soil with arsenic detected equal to or greater than 20 mg/kg and is not "exempt from reporting" to MassDEP, will be treated as "remediation waste" and not accepted at the site. All soil originating from out of state shall have a maximum arsenic concentration less than 20 mg/kg to be considered for acceptance. No exemptions apply for out of state soils.

The property is located in an area without municipal water supply, which means DEP categorizes it as a 'Potential Drinking Water Source Area' per the Massachusetts Contingency Plan (MCP) definition at 310 CMR 40.0006(12). Therefore, the applicable groundwater reporting category is RCGW-1 and soil reporting category RCS-1. Accordingly, in consideration of the Similar Soils Policy, the less than RCS-1 Acceptance Criteria have been established and are presented in "Table 1 – Phase I & Phase II Acceptance Criteria".

Soil Chemical Testing Requirements

Required Test Parameters

Test parameters required on soil to be considered for acceptance include:

- Volatile Organic Compounds (EPA 8260) Low-Level;
- Semi-volatile Organic Compounds (EPA 8270 full list);
- Metals: MCP 14 metals;
- PCBs (<0.1 reporting limit);
- Total Petroleum Hydrocarbons (summation of EPH Fractions may be substituted);
- Hexavalent Chromium if Total Chromium > 100 mg/kg;
- pH/Corrosivity;
- Specific Conductance (conductivity) (may be excluded or limited based on site history);

- Field Screening for Total Organic Vapors (PID following MassDEP Jar Headspace Screening Procedure based upon an isobutylene response factor);
- Herbicides (may be excluded or limited based on site history);
- Pesticides (may be excluded or limited based on site history);
- Ignitibility/Flash point (may be excluded or limited based on site history);
- Reactive Cyanide (may be excluded or limited based on site history);
- Reactive Sulfide (may be excluded or limited based on site history);
- TCLP for any analyte exceeding EPA TCLP Trigger Values (20 times rule);

Additional testing may be required as deemed prudent based on soil source site history. Other potential constituents based on location-specific history include asbestos, amenable cyanide, dioxins, per- and polyfluoroalkyl substances (PFAS). Perchlorate testing for blasted or excavated ledge/bedrock is required unless technical justification is provided by the LSP/QEP for the Generator. The LSP/QEP should be familiar with the "Interim Guidance on Sampling and Analysis for PFAS as Disposal Sites Regulated under the Massachusetts Contingency Plan dated October 21, 2020 (Original Publication Date: June 19, 2018 and previously updated December 27, 2019)" and can be found here: https://www.mass.gov/doc/interim-guidance-on-sampling-and-analysis-for-pfas-at-disposal-sites-regulated-under-the/download

Soil and slurry mixtures containing bentonite and/or Portland cement will not be accepted. Soil and slurry mixtures containing polymer-based additives at <1% by volume will be considered on a case-by-case basis after evaluation of the additives Safety Data Sheet (SDS).

Samples must be analyzed in accordance with MassDEP Compendium of Analytical Methods. Reporting limits (RLs) for analyses must be appropriate for comparison to Acceptance Criteria. The use of routine VOCs and SVOC analysis with typical RLs consistent with CAM Methods and 310 CMR 40.0000 is sufficient as long as the QEP/LSP-of-Record provides technical justification that the soil being tested is not likely to contain the less common VOC and SVOC compounds (such as 1,4-dioxane and various chlorinated VOCs/SVOCs) and based on a review of other relevant site-specific information. All RLs or Method Detection Limits (MDL's) must be equal to or less than the applicable RCS-1 standards except for the less common VOCs and SVOCs discussed above.

Required Chemical Testing and Frequency

Testing is required at the minimum frequencies below for reuse at the Fish Road Reclamation Project site:

	General Source/Origin Description	Minimum Test Profile Frequency
1	Naturally Deposited Soil containing no fill materials. Excludes soil from sources meeting Categories 2, 3, 4, 5 or 6 criteria below.	1 test profile per 1,000 cubic yards (1,500-1,700 tons) for initial review.
2	Naturally Deposited Soil from areas of known or suspected naturally occurring high background levels of constituents and containing no fill materials. Excludes soil from sources meeting Categories 3, 4, 5 or 6 criteria below.	1 test profile per 1,000 cubic yards (1,500-1,700 tons) for initial review.
3	Naturally Deposited Marine Soils and Boston Blue Clay containing no fill materials. Excludes soil from sources meeting Categories 5 or 6 criteria below.	1 test profile per 1,000 cubic yards (1,500-1,700 tons) for initial review.
4	Fill Materials: Soil, sediments, rock and/or stone obtained off site that was used to fill holes or depressions, create mounds, or otherwise artificially change the grade or elevation of real property. This category includes, but is not limited to urban and non-urban fill, and any natural soil/fill mixture.	1 test profile per 500 cubic yards (750-850 tons) for initial review. Additional test parameters such as cyanide and asbestos may be required.
5	Soil from Industrial, Commercial or Manufacturing site with history of any of the following: tannery, textiles, chemical/ paint production, circuit board manufacturing, plating/metal finishing, foundry operations, coal gasification, dry cleaning, salvage yards, pesticide/ herbicide use, storage or distribution. A LSP, LSRP or LEP must provide a report detailing why such soils conform to the Fish Road Reclamation Project.	1 test profile per 500 cubic yards (750-850 tons) for initial review. Additional test parameters based on site history may be required.
6	Soil from sources not otherwise described above where historic test data indicate potential exceedance of any acceptance criteria or where past use or storage of OHM at more than household quantities.	1 test profile per 500 cubic yards (750-850 tons) for initial review. Additional test parameters based on historic test data may be required.

7	Rock: Blasted or excavated ledge or bedrock.	One test for perchlorate per 500 cy, unless Generator demonstrates that no perchlorate blasting agents were used. One geochemical characterization profile per 500 cy including Acid Base Accounting and Net Acid Generation Potential unless Generator demonstrates that the rock is not known or suspected to contain sulfide minerals.

For acceptance purposes, soil density will be considered 1.5 tons per cubic yard for soil sampled from a stockpile, and no greater than 1.7 ton per cubic yard for soil sampled in-situ via borings or test pits. Further technical justification will be required for acceptance of soil with assumed density greater than 1.7 ton per cubic yard.

Test Data Quality and Usability

Test data provided for review and acceptance must be considered current. If aged data (greater than 1 year old) is to be utilized for acceptance, a statement from the qualified environmental professional making the submittal must be provided indicating site conditions have not changed since collection of data and that no documented releases that may impact site conditions have occurred since data was collected.

Prior to submittal, the environmental professional making the submittal must perform a QA/QC evaluation of the data to document that data is representative and usable for its intended purpose.

Field Screening Requirement

Soil must be field screened for Total Organic Vapors following the MADEP Jar Headspace Screening Procedure (MADEP Policy #WSC-94-400 Attachment 2, modified to be based upon an isobutylene response factor rather a Benzene standard). Soil must be field screened at the time of excavation, stockpiling or load out to the Fish Road Reclamation Project at a frequency of 1 field screening test per approximately 50 cubic yards of soil. Soil must contain total organic vapors (TOV) less than 5 parts per million volume (ppmv) by the jar headspace screening procedure to meet Acceptance Criteria. Natural organic soils which exhibit TOV screening levels greater than 5 ppmv above ambient background may be considered for acceptance on a case-by-case basis provided the following: results of analytical testing, particularly VOC analysis, identifies no exceedances of acceptance criteria; source of elevated TOV screening levels can be attributed to a source other than oil or hazardous material (such as hydrogen sulfide interference on PID). All soil proposed for reuse shall not have an unpleasant odor.

Visual Requirement

Soil will exhibit no indication of staining or other discoloration indicative of a release or impact of oil or hazardous material or other nuisance conditions. Soil and fill materials approved for use at the property shall contain no more than 5% Asphalt, Brick and Concrete ("ABC") material. Any such ABC material must measure less than 6 inches in any dimension and acceptance of such soil will be considered on a case-by-case basis. Soil and fill materials approved for use at the property may contain de-minimus quantities, not to exceed 5%, of ash and/or Solid Waste (e.g. Municipal Solid Waste and/or Construction and Demolition Waste) as defined in 310 CMR 16.00 and 310 CMR 19.000. The acceptance of Remediation Waste, as defined at 310 CMR 40.0006, is prohibited.

QA/QC Requirement

Each month the Independent Third-Party Inspector will randomly select a load arriving to the Fish Road Reclamation Project for a QA/QC Inspection and instruct them to dump in the designated QA/QC area. The Third-Party Inspector will inspect the load visually, screen the soil with a PID and collect a soil sample. Loads arriving with material not meeting acceptance criteria or determined to contain contaminants at levels at or exceeding acceptance criteria based on QA/QC sampling will be rejected and removed from the site at the expense of the Generator of that material. Loads not meeting acceptance criteria at the time of delivery to the project site due to debris, odors, or other nonconformance with Acceptance Criteria will be rejected prior to off-loading or reloaded immediately by W.L. French. Such loads will be removed from the project site immediately in the truck they were delivered in. Should QA/QC testing indicate soil as delivered is not below Acceptance Criteria, then the Generator of that soil and the party contracting with W.L. French for placement of soil at the site will promptly remove such soil from the project site. Should the Generator and/or contracting party not promptly remove unacceptable soil, W.L. French will promptly act to remove that soil from the project site. W.L. French will pursue cost recovery from the Generator and/or the contracting party for all costs associated with removal from the site if soil is not below all Acceptance Criteria. Additional soil will not be accepted from a source where soil failed a monthly QA/QC test or soil was rejected from the site upon arrival until an appropriate resolution is reached.

Soil Submittal and Approval Process

A Soil Submittal Package must be provided by representatives of each soil source/origin for review and approval by representatives of the Fish Road Reclamation Project.

A complete package is to be provided to:

W.L. French Excavating Corporation
14 Sterling Road
Billerica, MA 01862
Attention: Jarrett Everton 978-663-2623
Email: jeverton@wlfrench.com

W.L. French will perform a preliminary review to establish whether the submittal is complete and soil is appropriate for reuse as fill material at the Fish Road Reclamation Project site. The submittal will then be forwarded to the independent LSP contracted by W.L. French to perform the final review and approval.

Upon completion of the initial review, supplemental information, clarification, or additional delineation/frequency testing can be requested prior to acceptance. The source making the submittal must provide the information, clarification, or additional test data as requested for the approval process to proceed.

The review process will typically take from 2 to 4 business days depending on the number of submittals in the queue for review, the amount of soil requested for approval, and available capacity.

Site Access

The Fish Road Reclamation Project site is readily accessed from Fish Road via West Dudley Road. Route 131 (Southbridge Road) is located approximately 0.9 miles south of the entrance to the Fish Road Reclamation Project. Access to Interstate 395 is located approximately 8.5 miles east of the project site via Route 131 and Route 197. Access to Interstate 84 is located approximately 8 miles to the west of the project site via Route 131.

Truck drivers that fail to follow the approved routes will be given one warning. Drivers that repeat use of an unauthorized trucking route will be directed not to return to the Fish Road Reclamation Project site with any additional loads.

Normal operating hours are approximately 7:00 AM to 4:00 PM Monday through Friday. Some allowance can be made until 5 pm for late loads with advanced notice. Saturdays are available for an additional fee with advanced notice.

Dust and Sediment Control Plan

The Fish Road Reclamation Project will use the following measures to mitigate dust and sediment at the project site:

- A water truck will be utilized as needed to control dust;
- Gravel tracking pad has been installed at the entrance to the site and will be replaced as needed to control sediment tracking on town roadways;
- Roads will be swept as needed to control dust and soil from tracking on to pubic roadways;
- Filling operations will be suspended when winds exceed 40 miles per hour;
- Erosion controls including silt fence and hay bales have been installed at a minimum of 50' from bordering vegetated wetlands. These erosion controls will be inspected monthly during the Third Party QAQC inspections and as required per the SWPPP.

Revisions to Fill Management Plan

This FMP has been drafted for Phase I and II Area Reclamation activities only and will be modified as needed to meet changing project objectives, environmental regulations, or other requirements. Updates to this plan will be noted on the cover page.

Soil Acceptance Criteria may be modified as the project proceeds to meet changing regulatory criteria such as Reportable Concentrations, cleanup standards, background levels, or other guidelines published by MassDEP.

Very truly yours,

William French Jr.
President
W. L. French Excavating Corporation

Benson R. Gould
Licensed Site Professional
CMG Environmental, Inc.

Table 1

Soil Acceptance Criteria

14 STERLING ROAD NORTH BILLERICA, MA 01862
Main Phone 978.663.2623 Facsimile 978.663.5240 wlfrench.com

Fish Road Reclamation Project
Dudley, MA
Phase I and Phase II Acceptance Criteria
Table 1

Test	Parameter	Fish Road <RCS-1 Acceptance Criteria	RCS-1 Reportable Concentration
PID (ppmv)	Total Organic Vapors	**<5**	**NA**
VOCs (mg/kg)	Acetone (2-propanone)	**0.6**	**6**
	Acrylonitrile	**10**	**100**
	Benzene	**0.2**	**2**
	Bromobenzene	**10**	**100**
	Bromochloromethane	**—**	**NE**
	Bromodichloromethane	**0.01**	**0.1**
	Bromoform	**0.01**	**0.1**
	Bromomethane	**0.05**	**0.5**
	2-Butanone (MEK)	**0.4**	**4**
	n -Butylbenzene	**—**	**NE**
	sec -Butylbenzene	**—**	**NE**
	tert -Butylbenzene	**10**	**100**
	Carbon Disulfide	**10**	**100**
	Carbon Tetrachloride	**0.5**	**5**
	Chlorobenzene	**0.1**	**1**
	Chloroethane	**10**	**100**
	Chloroform	**0.02**	**0.2**
	Chloromethane	**10**	**100**
	2-Chlorotoluene (*ortho*)	**10**	**100**
	4-Chlorotoluene	**1**	**10**
	1,2-Dibromo-3-chloropropane	**1**	**10**
	Dibromochloromethane	**0.0005**	**0.005**
	1,2-Dibromoethane (EDB)	**0.01**	**0.1**
	Dibromomethane	**50**	**500**
	1,2-Dichlorobenzene (*o* -DCB)	**0.9**	**9**
	1,3-Dichlorobenzene (*m* -DCB)	**0.3**	**3**
	1,4-Dichlorobenzene (*p* -DCB)	**0.07**	**0.7**
	trans -1,4-Dichloro-2-butene	**1**	**10**
	Dichlorodifluoromethane	**100**	**1,000**
	1,1-Dichloroethane	**0.04**	**0.4**
	1,2-Dichloroethane	**0.01**	**0.1**
	1,1-Dichloroethene	**0.3**	**3**
	cis -1,2-Dichloroethene	**0.01**	**0.1**
	trans -1,2-Dichloroethene	**0.1**	**1**
	1,2-Dichloropropane	**0.01**	**0.1**
	1,3-Dichloropropane	**50**	**500**
	2,2-Dichloropropane	**0.01**	**0.1**
	1,1-Dichloropropene	**0.001**	**0.01**
	cis -1,3-Dichloropropene	**0.001**	**0.01**
	trans -1,3-Dichloropropene	**0.001**	**0.01**
	Di-isopropyl ether	**10**	**100**
	1,4-Dioxane	**0.02**	**0.2**
	Ethanol	**10**	**100**
	Ethylbenzene	**4**	**40**
	Ethyl ether	**10**	**100**
	Hexachlorobutadiene	**3**	**30**
	2-Hexanone (MBK)	**10**	**100**
	Isopropylbenzene	**100**	**1,000**
	2-Isopropyltoluene (*ortho*)	**—**	**NE**
	4-Isopropyltoluene (*para*)	**10**	**100**
	Methyl Tertiary Butyl Ether (MTBE)	**0.01**	**0.1**
	4-Methyl-2-pentanone (MIBK)	**0.04**	**0.4**
	Methylene Chloride (DCM)	**0.01**	**0.1**
	Naphthalene	**0.4**	**4**
	n -Propylbenzene	**10**	**100**
	Styrene	**0.3**	**3**
	Tertiary butyl ether	**10**	**100**
	1,1,1,2-Tetrachloroethane	**0.01**	**0.1**
	1,1,2,2-Tetrachloroethane	**0.0005**	**0.005**
	Tetrachloroethene (PCE)	**0.1**	**1**
	Tetrahydrofuran	**50**	**500**
	Toluene	**3**	**30**
	1,2,3-Trichlorobenzene	**—**	**NE**
	1,2,4-Trichlorobenzene	**0.2**	**2**
	1,1,1-Trichloroethane (TCA)	**3**	**30**
	1,1,2-Trichloroethane	**0.01**	**0.1**
	Trichloroethene (TCE)	**0.03**	**0.3**
	Trichlorofluoroethane	**—**	**NE**
	Trichlorofluoromethane	**100**	**1,000**
	1,2,3-Trichloropropane	**10**	**100**
	1,2,4-Trimethylbenzene	**100**	**1,000**
	1,3,5-Trimethylbenzene	**1**	**10**
	Vinyl chloride	**0.07**	**0.7**
	m, p -Xylenes	**10**	**100**
	o -Xylenes	**10**	**100**
	Xylenes (total)	**10**	**100**
TPH (mg/kg)	Total Petroleum Hydrocarbons Petroleum Identification (qualitative)	**500**	**1,000**

Notes
NE = No Established standard

Fish Road Reclamation Project
Dudley, MA
Phase I and Phase II Acceptance Criteria
Table 1

Test	Parameter	Fish Road <RCS-1 Acceptance Criteria	RCS-1 Reportable Concentration
SVOCs (mg/kg)	Acenaphthene	**4**	**4**
	Acenaphthylene	**1**	**1**
	Acetophenone	**100**	**1,000**
	Aniline	**100**	**1,000**
	Anthracene	**10**	**1,000**
	Benzo(a)anthracene	**7**	**7**
	Benzidine	**1**	**10**
	Benzo(a)pyrene	**2**	**2**
	Benzo(b)fluoranthene	**7**	**7**
	Benzo(g,h,i)perylene	**10**	**1,000**
	Benzo(k)fluoranthene	**10**	**70**
	Benzoic acid	**100**	**1,000**
	Benzyl butyl phthalate	**10**	**100**
	Biphenyl	**0.005**	**0.05**
	bis (2-chloroethoxy)methane	**50**	**500**
	bis (2-Chloroethyl)ether	**0.07**	**0.7**
	bis (2-Chloroisopropyl)ether	**0.07**	**0.7**
	bis (2-Ethylhexyl)phthalate	**9**	**90**
	4-Bromophenyl phenyl ether	**10**	**100**
	Carbazole	**—**	**NE**
	4-Chloroaniline (*para*)	**0.1**	**1**
	2-Chloronaphthalene	**100**	**1,000**
	4-Chloro-3-methylphenol	**100**	**1,000**
	2-Chlorophenol	**0.07**	**0.7**
	4-Chlorophenyl phenyl ether	**100**	**1,000**
	Chrysene	**20**	**70**
	Dibenzo(a,h)anthracene	**0.7**	**0.7**
	Dibenzofuran	**10**	**100**
	3,3'-Dichlorobenzidine	**0.3**	**3**
	1,2-Dichlorobenzene (*o* -DCB)	**0.9**	**9**
	1,3-Dichlorobenzene (*m* -DCB)	**0.3**	**3**
	1,4-Dichlorobenzene (*p* -DCB)	**0.07**	**0.7**
	2,4-Dichlorophenol	**0.07**	**0.7**
	Diethyl Phthalate	**1**	**10**
	2,4-Dimethylphenol	**0.07**	**0.7**
	Dimethyl Phthalate	**0.07**	**0.7**
	Di-*n* -Butyl Phthalate	**5**	**50**
	4,6-Dinitro-2-methylphenol	**5**	**50**
	2,4-Dinitrophenol	**0.3**	**3**
	2,4-Dinitrotoluene	**0.07**	**0.7**
	2,6-Dinitrotoluene	**10**	**100**
	Di-*n* -Octyl Phthalate	**100**	**1,000**
	1,2-Diphenylhydrazine	**5**	**50**
	Fluoranthene	**40**	**1,000**
	Fluorene	**10**	**1,000**
	Hexachlorobenzene	**0.07**	**0.7**
	Hexachlorobutadiene	**3**	**30**
	Hexachlorocyclopentadiene	**5**	**50**
	Hexachloroethane	**0.07**	**0.7**
	Indeno(1,2,3-cd)pyrene	**7**	**7**
	Isophorone	**10**	**100**
	2-Methylnaphthalene	**0.7**	**0.7**
	2-Methylphenol (o-cresol)	**50**	**500**
	3&4-Methylphenol (m&p-cresol)	**50**	**500**
	Naphthalene	**4**	**4**
	2-Nitroaniline (*ortho*)	**—**	**NE**
	3-Nitroaniline (*meta*)	**—**	**NE**
	4-Nitroaniline (*para*)	**100**	**1,000**
	Nitrobenzene	**50**	**500**
	N-Nitrosodimethylamine	**5**	**50**
	N-Nitrosodi-*n* -propylamine	**5**	**50**
	N-Nitrosodiphenylamine	**10**	**100**
	2-Nitrophenol (*ortho*)	**10**	**100**
	4-Nitrophenol (*para*)	**10**	**100**
	Pentachloronitrobenzene	**10**	**100**
	Pentachlorophenol	**0.3**	**3**
	Phenanthrene	**10**	**10**
	Phenol	**0.1**	**1**
	Pyrene	**40**	**1,000**
	Pyridine	**50**	**500**
	1,2,4,5-Tetrachlorobenzene	**100**	**1,000**
	1,2,4-Trichlorobenzene	**0.2**	**2**
	2,4,5-Trichlorophenol	**0.4**	**4**
	2,4,6-Trichlorophenol	**0.07**	**0.7**
PCBs	No Aroclor identification	**0.1**	**1**

Notes
NE = No Established standard
NT = Not Tested (for that parameter)
Total SVOCs must be less than 100

Fish Road Reclamation Project
Dudley, MA
Phase I and Phase II Acceptance Criteria
Table 1

Test	Parameter	Fish Road <RCS-1 Acceptance Criteria	RCS-1 Reportable Concentration
Total Metals (mg/kg)	Antimony	**10**	**20**
	Arsenic	**20**	**20**
	*Arsenic (naturally occuring)	**<100**	**NE**
	Barium	**375**	**1,000**
	Beryllium	**4**	**90**
	Cadmium	**20**	**70**
	Chromium (total)	**100**	**100**
	Lead	**200**	**200**
	Mercury	**3**	**20**
	Nickel	**150**	**600**
	Selenium	**5**	**400**
	Silver	**6**	**100**
	Thallium	**6**	**8**
	Vanadium	**225**	**400**
	Zinc	**500**	**1,000**
Chlorinated Pesticides & Herbicides (mg/kg) (2)	Alachlor	**10**	**100**
	Aldrin	**0.008**	**0.08**
	α-BHC	**5**	**50**
	β-BHC	**1**	**10**
	γ-BHC (Lindane, γ-HCH)	**0.0003**	**0.003**
	δ-BHC	**1**	**10**
	Chlordane	**0.5**	**5**
	4,4-DDD (p,p')	**0.8**	**8**
	4,4-DDE (p,p')	**0.6**	**6**
	4,4-DDT (p,p')	**0.6**	**6**
	Dieldrin	**0.008**	**0.08**
	α-Endosulfan (I)	**0.05**	**0.5**
	β-Endosulfan (II)	**0.05**	**0.5**
	Endosulfan Sulfate	**"See listed constituents"**	
	Endrin	**1**	**10**
	Endrin Aldehyde	**1**	**10**
	Endrin ketone	**1**	**10**
	Heptachlor	**0.03**	**0.3**
	Heptachlor Epoxide	**0.01**	**0.1**
	Hexachlorobenzene	**0.07**	**0.7**
	Methoxychlor	**20**	**200**
	Toxaphene	**1**	**10**
	2,4-D	**10**	**100**
	2,4-DB	**10**	**100**
	Dalapon	**100**	**1,000**
	Dicamba	**50**	**500**
	Dichlorprop	**—**	**NE**
	Dinoseb	**50**	**500**
	MCPA	**10**	**100**
	MCPP	**—**	**NE**
	2,4,5-T	**10**	**100**
	2,4,5-TP (Silvex)	**10**	**100**
Other	Percent Solids	**No Free Liquids**	**—**
	pH (Standard Units)	**5-9 S.U.**	**>2.0 or <12.5 S.U.**
	Corrosivity (positive/negative)	**Negative**	**Negative**
	Specific Conductance (µmhos/cm)	**2,000**	**—**
	Flashpoint (°F)	**Non-Ignitable**	**Non-Ignitable**
	Ignitability (°F)	**>140 °F**	**>140 °F**
	Cyanide Reactivity	**<250**	**Non-Reactive**
	Sulfide Reactivity	**<500**	**Non-Reactive**
	Reactivity (positive/negative)	**None**	**Negative**
	Percent Solids	**No Free Liquids**	
	Ammedable Cyanide (1)	**3**	**30**
	Asbestos (1)	**ND**	**1%**
	Dioxins (1)	**<0.0000002**	**0.000002**
	Perchlorate Compounds (1)	**<0.01**	**0.1**
	Per- and Polyfluoroalkyl Substances (PFAS) (1)	**ND**	**NE**

Notes
NE = No Established standard
NT = Not Tested (for that parameter)
* Naturally occuring arsenic acceptance criteria does not apply to soil originating from out-of-state.
(1) Must analyze if considered to be a chemical of concern at generating site
(2)Herbicides or pesticides <10% applicable RCs (and no known or potential source)

Soil Submittal Checklist and Profile Form

14 STERLING ROAD NORTH BILLERICA, MA 01862
Main Phone 978.663.2623 Facsimile 978.663.5240 wlfrench.com

SOIL PROFILE FORM

FISH ROAD RECLAMATION PROJECT
DUDLEY, MASSACHUSETTS

PROFILE NUMBER_____
(Assigned by W.L. French Excavating Corp.)

A. SITE INFORMATION:	
Name:	Contact:
Address:	Phone:
City:	State, Zip:
Release Tracking No. or Site ID No. (if applicable):	

B. GENERATOR INFORMATION:	
Name:	Contact:
Address:	Phone:
City:	State, Zip:

C. CONSULTANT INFORMATION:	
Company:	Contact:
Address:	Phone:
City:	State, Zip:

D. ESTIMATED SOIL QUANTITY:	
Tons:	Cubic yards:

E. LABORATORY ANALYSIS

Check the following laboratory analyses performed on the material to be reused (check all that apply):

☐VOCs, SVOCs, TPH, PCBs	☐pH
☐MCP14 Metals	☐Reactivity
☐TCLP (if required by total levels)	☐Herbicides
☐Conductivity	☐Pesticides
☐Ignitability/Flash Point	☐Other laboratory analysis performed:
☐Field screening performed (describe below)	

☐Attach data summary tables for all soil from source and laboratory reports for only applicable samples

F. SITE HISTORY:

☐ Check if extra sheet attached

Current Use(s):

Past Use(s):

Check additional site history/uses below. Provide additional description as needed:

Tannery ☐YES ☐NO	Salvage/Junk Yard ☐YES ☐NO
Textiles ☐YES ☐NO	Petroleum Storage ☐YES ☐NO
Foundry ☐YES ☐NO	Plating/Metal Finishing ☐YES ☐NO
Dry Cleaning ☐YES ☐NO	Chemical Production ☐YES ☐NO
Coal Gasification ☐YES ☐NO	Circuit Board Manufacturer ☐YES ☐NO
Machine Shop ☐YES ☐NO	Herbicide/Pesticide Use, Storage or Disposal ☐YES ☐NO
Historic Urban Fill Soil present ☐YES ☐NO	Boston Blue Clay present ☐YES ☐NO
Naturally Occurring Arsenic >20 mg/kg ☐YES ☐NO	

G. PHYSICAL SOIL DESCRIPTION

Physical Description (sand, gravel, silt, peat, fill, clay etc.):_____

CHECK IF THE FOLLOWING MATERIALS ARE PRESENT

Clay ☐YES ☐NO	Coal ☐YES ☐NO
Ash ☐YES ☐NO	Construction Debris ☐YES ☐NO
Vegetative Matter ☐YES ☐NO	Other Material ☐YES ☐NO_____

H. SOIL SAMPLING METHODOLOGY

Sampling Methods (check all that apply)

☐Grab	☐Headspace Screened
☐Composite (based on grab samples)	☐Visually Contaminated
☐Olfactory contaminated	☐Other (describe in LSP Letter)

I. SOIL CHARACTERIZATION METHODOLOGY

Soil Characterization (check all that apply)

☐Stockpile ☐In-situ

Other

Number of full suite samples collected_____

Hot Spots Identified ☐YES ☐NO (if yes, discuss in LSP Letter how hotspots were segregated)

J. GENERATOR CERTIFICATION:

I, the generator, having used due diligence and determined that the soil described within this Soil Submittal Package and intended for reuse at the Fish Road Reclamation Project meets the acceptance criteria, screening procedures, and due diligence described within the Fill Management Plan. There is no reason to suspect or believe soil intended for reuse at Fish Road Reclamation Project has been impacted by any releases of oil or hazardous materials or contains any other contaminants than those at levels described herein. I agree to promptly remove any soil delivered to Fish Road Reclamation Project that is determined by W. L. French Excavating Corp. to not meet acceptance criteria. Should W. L. French Excavating Corp. take action and remove such soil from the Fish Road Reclamation Project and manage that material elsewhere, W. L. French Excavating Corp. will seek payment from the Generator for all costs including damages.

SIGNATURE OF GENERATOR _____ **DATE**_____

GENERATOR - PRINTED NAME_____

K. SITE DIAGRAM

A site diagram is required indicating any major structures, roads, excavation areas, soil origin, sample locations, and stockpile locations. All sampling locations must be noted:

☐ Check if diagram is attached

SOIL SUBMITTAL CHECKLIST

Facility Name: Fish Road Reclamation Project
Project Address: off Fish Road, Assessor Map 229, Lot 158, Dudley, MA
Operator: W. L. French Excavating Corporation - 14 Sterling Road, Billerica, MA
Contact: Jarrett Everton 978-663-2623 email: jeverton@wlfrench.com

		CIRCLE ONE	
1.	Laboratory Testing performed?	YES	NO
2.	Proximity to urban fill or MCP Disposal Site stated?	YES	NO
3.	Supplemental delineation testing performed?	YES	NO
4.	All appropriate laboratory analyses performed?	YES	NO
5.	LSP opinion letter states that soil meets acceptance criteria?	YES	NO
6.	Description of site and contaminants provided? (Describe in LSP Opinion Letter)	YES	NO
7.	Description of current and former site usage/history is provided? (Describe in LSP Opinion Letter)	YES	NO
8.	Is soil considered "remediation waste" under the MCP?	YES	NO
9.	Is soil considered "exempt from reporting" to a regulatory authority? (if yes Describe in LSP Opinion Letter)	YES	NO
10.	Soil analytical data for specific samples attached and of sufficient frequency with QA/QC and Chain of Custody attached?	YES	NO
11.	Field screening data used to support chemical composition provided?	YES	NO
12.	Physical description/soil classification is provided?	YES	NO
13.	Site figure showing soil origin, soil stockpiles, and location of all soil samples is provided?	YES	NO
14.	Data table comparing all applicable results to Fish Road Reclamation Project Acceptance Criteria provided?	YES	NO
15.	Signed & Stamped MSR is provided (BOLs not accepted)?	YES	NO
16.	Fish Road Reclamation Project Reuse Submittal Form completed, signed, and attached?	YES	NO
17.	Volume of soil requested for approval in LSP letter, Soil Reuse Submittal Form and MSR are the same?	YES	NO

Failure to provide the above information may result in the submittal being denied.

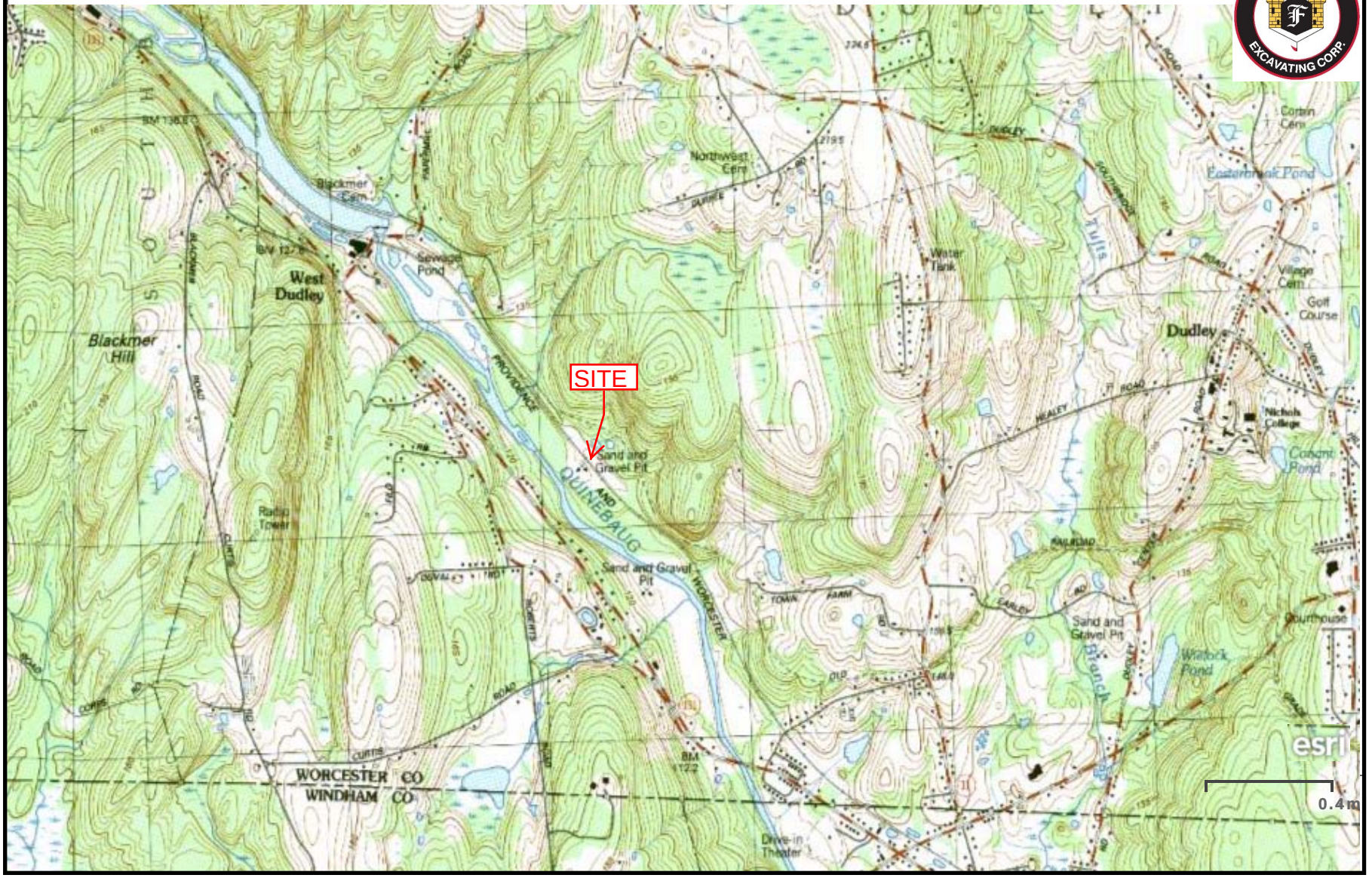
SIGNATURE (LSP) DATE

PRINT NAME (LSP)

Figures

FISH ROAD RECLAMATION - DUDLEY, MA

USGS Topographic Quadrangle Maps



MassGIS, UConn/CTDEEP, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA | USGS, MassGIS

FIGURE 1

SITE LOCUS MAP

NOTES:

TOPOGRAPHY WAS PRODUCED BY A DRONE FLIGHT COMPLETED ON APRIL 21, 2020.

THIS PLAN IS FOR PERMITTING ONLY. THE PROPERTY LINE SHOWN ON THIS PLAN IS GRAPHICAL AND APPROXIMATE. A BOUNDARY SURVEY WAS NOT COMPLETED TO DETERMINE THE PROPERTY LINE FOR THE PARCEL. A BOUNDARY SURVEY SHOULD BE PERFORMED PRIOR TO ANY EXCAVATIONS OR DISTURBANCES ON THE SITE.

0 40 80 120

LEGEND

- APPROX. RR EASEMENT
- WETLAND FLAGGING (PINK FLAGS)
- WETLAND FLAGGING (BLUE FLAGS)
- NON-JURISDICTIONAL WETLAND
- RAIL ROAD TIES
- TREE / BRUSH LINE
- 25' EXISTING CONTOUR LINE
- 5' EXISTING CONTOUR LINE
- PROPOSED GRADING

project information:

FISH ROAD

DUDLEY, MA

prepared for:

prepared by :

W.L. FRENCH EXCAVATING CORP.

W.L. FRENCH
3 SURVEY CIRCLE
BILLERICA, MA.

key plan:

drawing information:

drawing by:
drawing checked by:
drawing scale: 1"= 40'
drawing date: 08/26/2020
drawing revisions:
project number:

rev.	description	date

registration:

COMMONWEALTH OF MASSACHUSETTS
JOSEPH E. DANUSO III
CIVIL
No. 47166
REGISTERED PROFESSIONAL ENGINEER

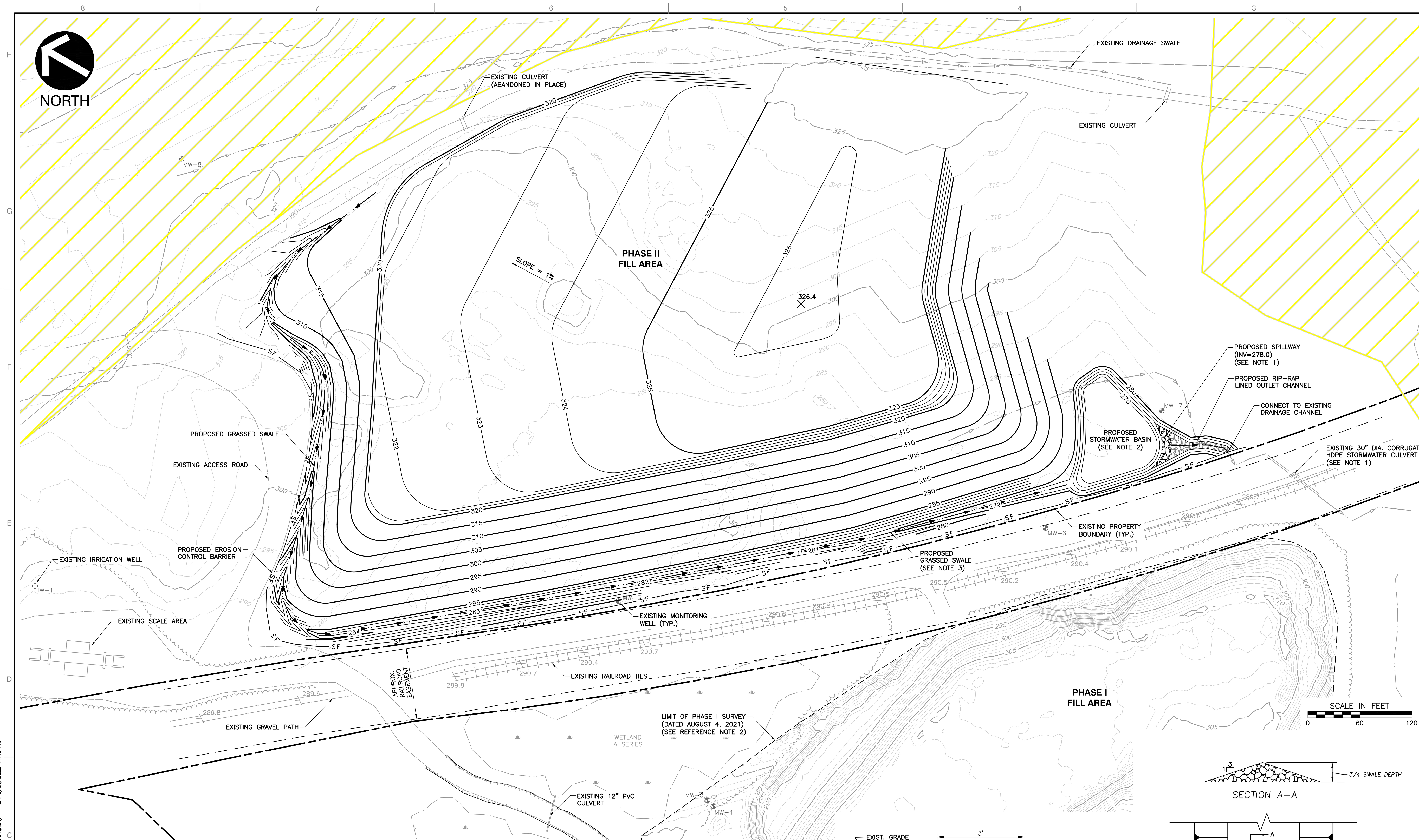
drawing name:

PROPOSED GRADING PLAN

PHASE I

drawing number:

Figure 2



LEGEND

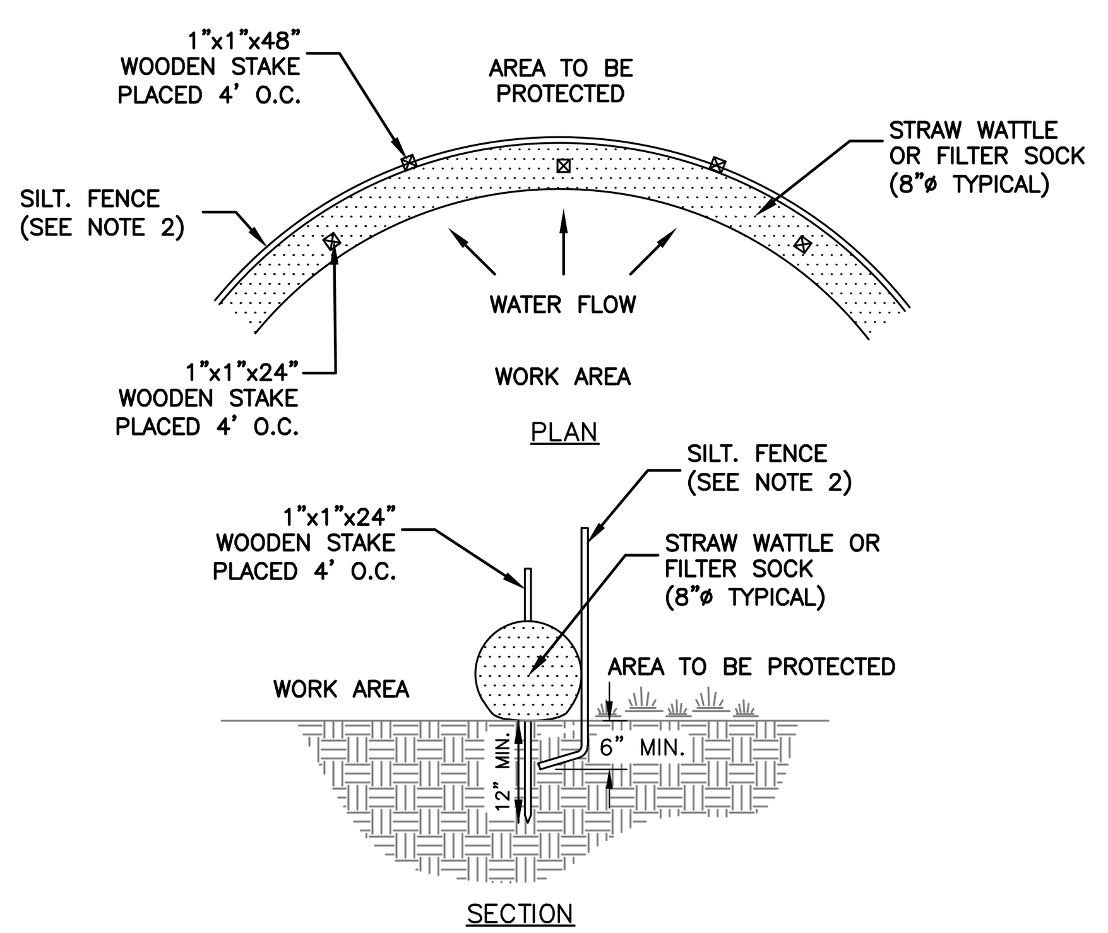
—— 300 ——	EXISTING INDEX (MAJOR) CONTOUR
	EXISTING INTERMEDIATE (MINOR) CONTOUR
	EXISTING PROPERTY LINE
	EXISTING RAIL EASEMENT
	EXISTING TREELINE
	EXISTING UNPAVED ROAD
	EXISTING DRAINAGE SWALE
—— ST ——	EXISTING STORM PIPE
	EXISTING WETLAND
MW-4	EXISTING MONITORING WELL
	PRIORITY HABITAT OF RARE SPECIES
—— 300 ——	PROPOSED INDEX (MAJOR) CONTOUR
	PROPOSED INTERMEDIATE (MINOR) CONTOUR
	PROPOSED RIP-RAP
—— SF ——	PROPOSED EROSION CONTROL BARRIER

REFERENCE

1. EXISTING TOPOGRAPHY WAS PRODUCED BY A DRONE FLIGHT COMPLETED ON SEPTEMBER 20, 2021 AND WAS PROVIDED ELECTRONICALLY TO CEC BY W.L. FRENCH.
2. EXISTING TOPOGRAPHY WITHIN THE PHASE I AREA WAS PRODUCED BY A DRONE FLIGHT COMPLETED ON AUGUST 4, 2021, AND WAS PROVIDED ELECTRONICALLY TO CEC BY W.L. FRENCH.
3. COORDINATES DATUM IS NSRS 2011. UNITS ARE U.S. SURVEY FEET.
4. EXISTING CONDITIONS SHOWN ON THIS PLAN WERE OBTAINED FROM RECENT SITE SURVEYS AND PROVIDED ELECTRONICALLY TO CEC. CEC HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION.
5. NHESP AREAS WERE OBTAINED FROM THE MASSACHUSETTS BUREAU OF GEOGRAPHIC INFORMATION'S (MASSGIS) MASSMAPPER ONLINE TOOL, ACCESSED DECEMBER 3, 2021. NHESP MAPS ARE AVAILABLE FROM THE 15th EDITION NATURAL HERITAGE ATLAS, DATED AUGUST 1, 2021.

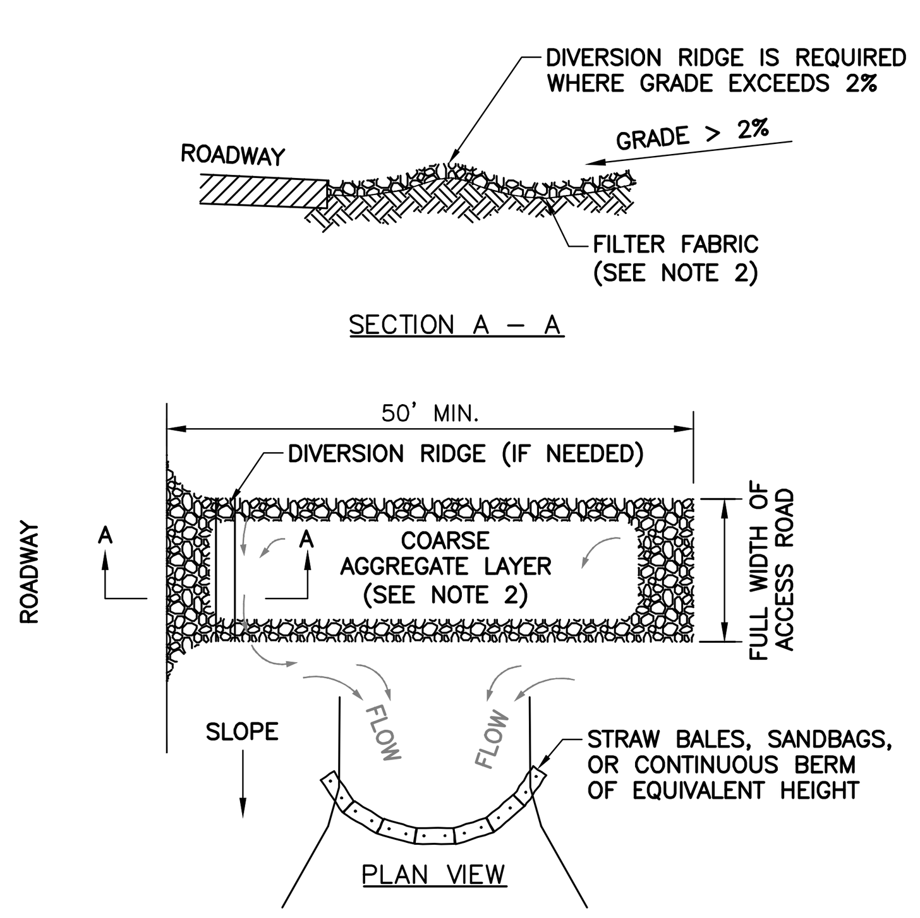
NOTES

1. POSITIVE PITCH SHALL BE ACHIEVED FROM THE STORMWATER BASIN SPILLWAY TO THE EXISTING CULVERT CROSSING UNDERNEATH THE OLD RAILROAD PATH. ANY DISCREPANCIES SHALL BE REPORTED TO ENGINEER IMMEDIATELY.
2. EXISTING GROUNDWATER ELEVATIONS HAVE NOT BEEN VERIFIED AT THIS TIME. TEST PITS SHOULD BE COMPLETED PRIOR TO CONSTRUCTION TO VERIFY SEASONAL HIGH GROUNDWATER ELEVATIONS. RESULTS OF TEST PITS SHALL BE REPORTED TO ENGINEER UPON COMPLETION.
3. EXISTING FIELD CONDITIONS ALONG THE EXISTING RAILROAD EASEMENT ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. DISCREPANCIES BETWEEN THE FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND THE EXISTING CONDITIONS SHOWN ON THIS PLAN SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.



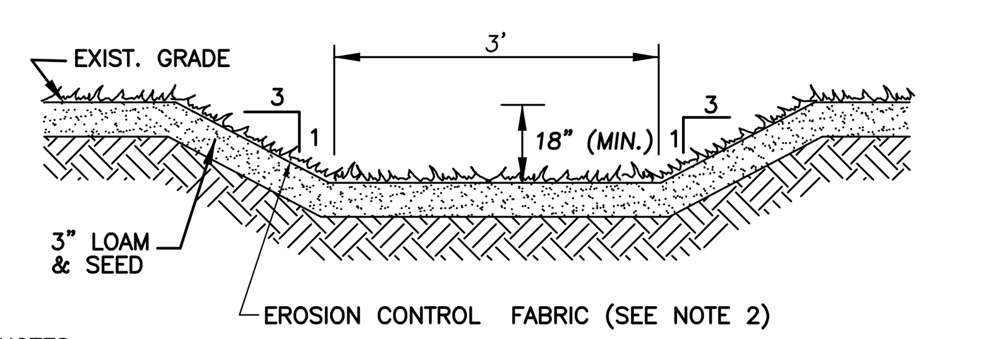
NOTES:
1. EROSION CONTROL BARRIER SHALL BE PLACED DOWN-GRADIENT OF ALL DISTURBED WORK AREAS.
2. THE BOTTOM OF THE SILT FENCE FABRIC SHALL BE BURIED INTO THE EXISTING SOIL TO A MINIMUM DEPTH OF 6-INCHES.

EROSION CONTROL BARRIER
N.T.S.



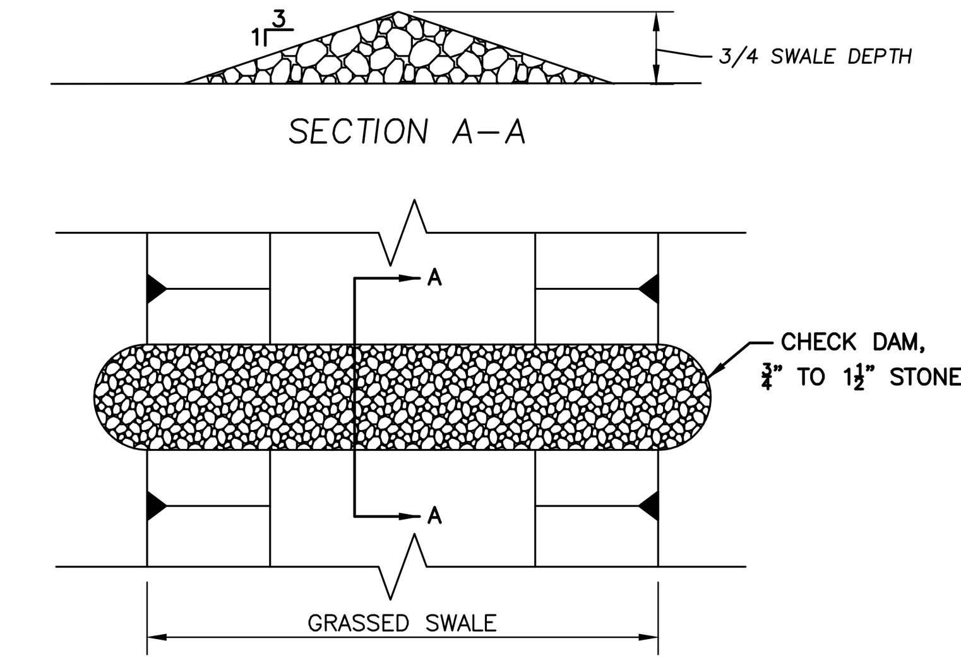
NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. THE ENTRANCE SHALL CONSIST OF A LAYER OF 2"-3" COARSE AGGREGATE (MIN. 6" THICK) UNDERLAIN BY A FILTER FABRIC. THE FILTER FABRIC SHALL BE MIRAFI 140NC OR APPROVED EQUIVALENT.
3. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. SUPPLY WATER TO WASH WHEELS IF NECESSARY.
4. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO A SEDIMENT CONTROL DEVICE. SAND BAGS, STRAW BALES, OR OTHER APPROVED METHOD SHALL BE IMPLEMENTED TO CHANNELIZE RUNOFF TO SEDIMENT CONTROL DEVICE.

CONSTRUCTION ENTRANCE
N.T.S.



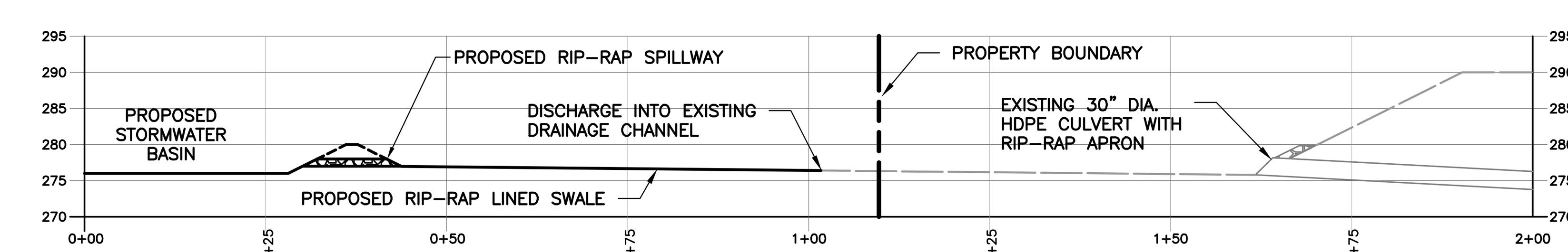
NOTES:
1. TO BE INSTALLED WHERE SHOWN ON THE SITE PLAN. MINIMUM INSTALLED LONGITUDINAL SLOPE SHALL BE 0.005 FT/FT.
2. THE SELECTED EROSION CONTROL FABRIC PRODUCT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND SHALL BE ABLE TO WITHSTAND THE FOLLOWING MINIMUM DESIGN PERFORMANCE VALUES:
   - UNVEGETATED SHEAR STRESS: 3.2 LBS/FT²
   - UNVEGETATED VELOCITY: 6.6 FT/SEC
   - VEGETATED SHEAR STRESS: 4.6 LBS/FT²
   - VEGETATED VELOCITY: 8.1 FT/SEC

GRASSED SWALE
N.T.S.



NOTES:
1. IN MULTIPLE CHECK DAM INSTALLATIONS, CHECK DAMS SHALL BE SPACED SUCH THAT BACKWATER FROM THE DOWNSTREAM CHECK DAM REACHES THE TOE OF THE UPSTREAM CHECK DAM.
2. CHECK DAMS SHALL BE INSPECTED AFTER SIGNIFICANT RAINFALL EVENTS. REPAIRS SHALL BE CONDUCTED AND SEDIMENT SHALL BE REMOVED AS NEEDED.

CHECK DAM
N.T.S.



STORMWATER BASIN SPILLWAY PROFILE
SCALE: N.T.S.

NOTES:
1. THE PROPOSED PROFILE IS ILLUSTRATIVE IN NATURE, AND IS INTENDED TO SHOW THE APPROXIMATE FLOW PATH FROM THE PROPOSED BASIN SPILLWAY TO THE EXISTING CULVERT CROSSING BENEATH THE RAILROAD EASEMENT.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
31 Bellows Road · Raynham, MA 02767
Ph: 774.501.2176 · 866.312.2024 · Fax: 774.501.2669
www.cecinc.com

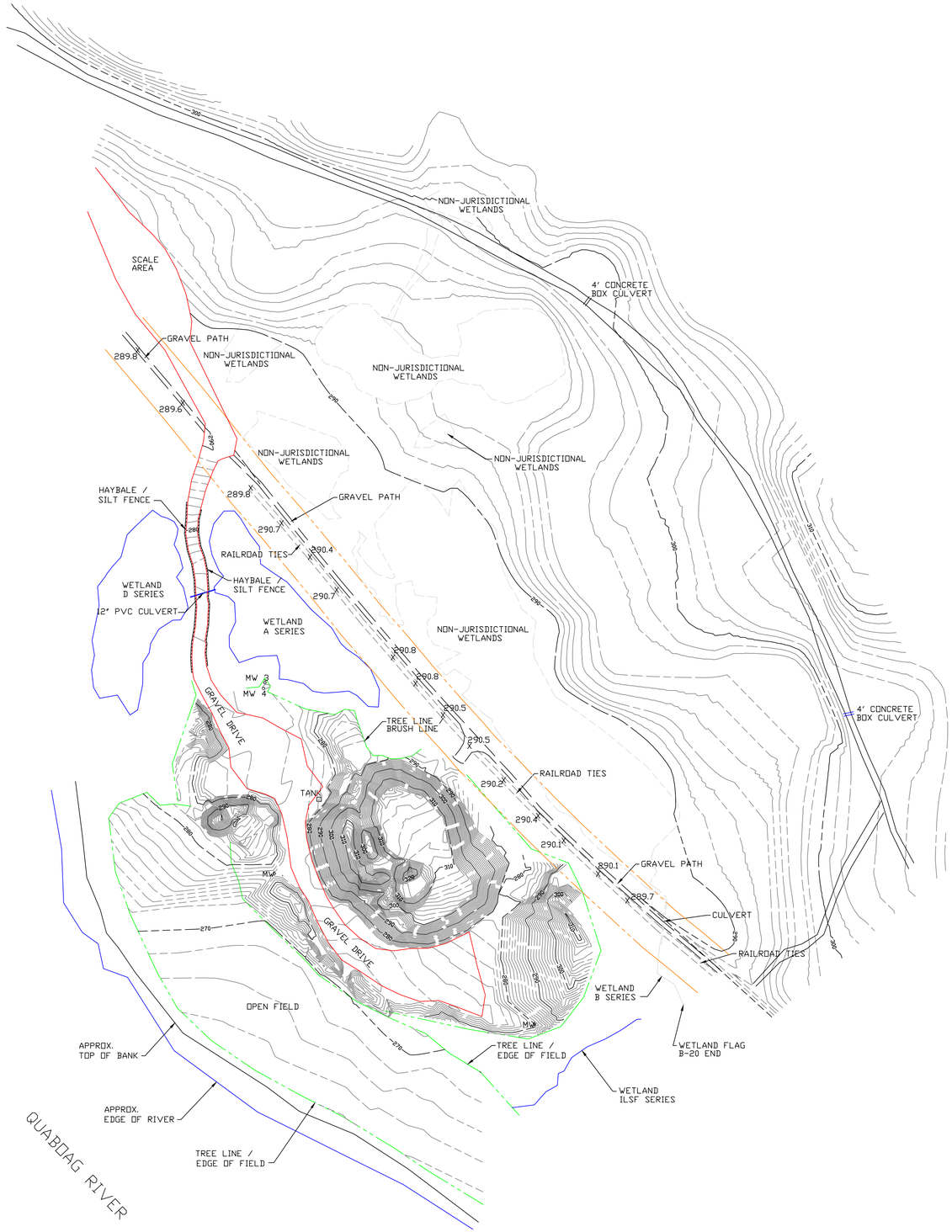
RAMPCO FRENCH JOINT VENTURE, LLC
PHASE II GRADING MODIFICATIONS
RAMPCO SITE FISH ROAD
FISH ROAD
DUDLEY, MASSACHUSETTS

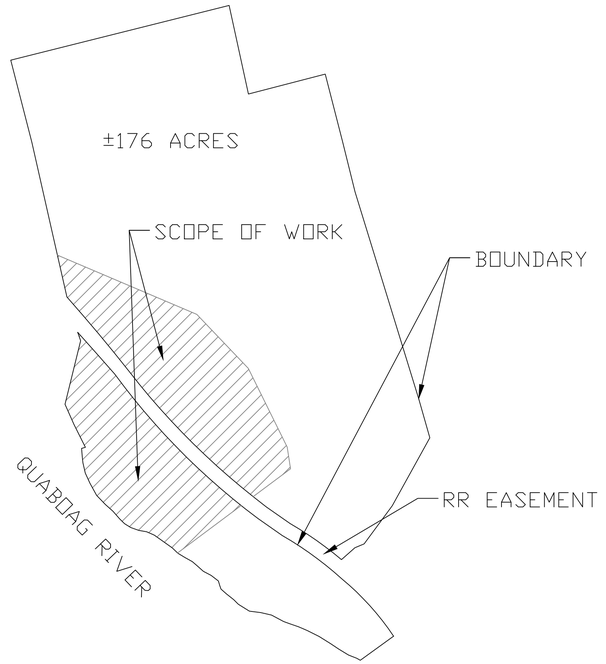
PHASE II REVISED GRADING PLAN

DATE:	MARCH 2022	DRAWN BY:	KFH
DWG SCALE:	1"=60'	CHECKED BY:	PJS
PROJECT NO:	315-947		
APPROVED BY:			PJS

COMMONWEALTH OF MASSACHUSETTS
PAUL J. SHAMOIAN
CIVIL
NO. 51806
REGISTERED PROFESSIONAL ENGINEER
3-30-2021

FIGURE NO.: **3**
SHEET 1 OF 1





LOCUS PLAN
1"=200'

LEGEND

- APPROX. RR EASEMENT
- WETLAND FLAGGING (PINK FLAGS)
- WETLAND FLAGGING (BLUE FLAGS)
- NON-JURISDICTIONAL WETLANDS
- EDGE OF GRAVEL
- EDGE OF PATHS
- RAIL ROAD TIES
- TREE / BRUSH LINE
- 10' CONTOUR LINES
- 1' CONTOUR LINES

project information:

FISH ROAD

DUDLEY, MA

prepared for:

prepared by:

W.L. FRENCH EXCAVATING CORP.

W.L. FRENCH
3 SURVEY CIRCLE
BILLERICA, MA.

key plan:

drawing information:

drawing by:	
drawing checked by:	
drawing scale:	1"= 100'
drawing date:	3/31/2020
drawing revisions:	
project number:	

rev.	description	date

registration:

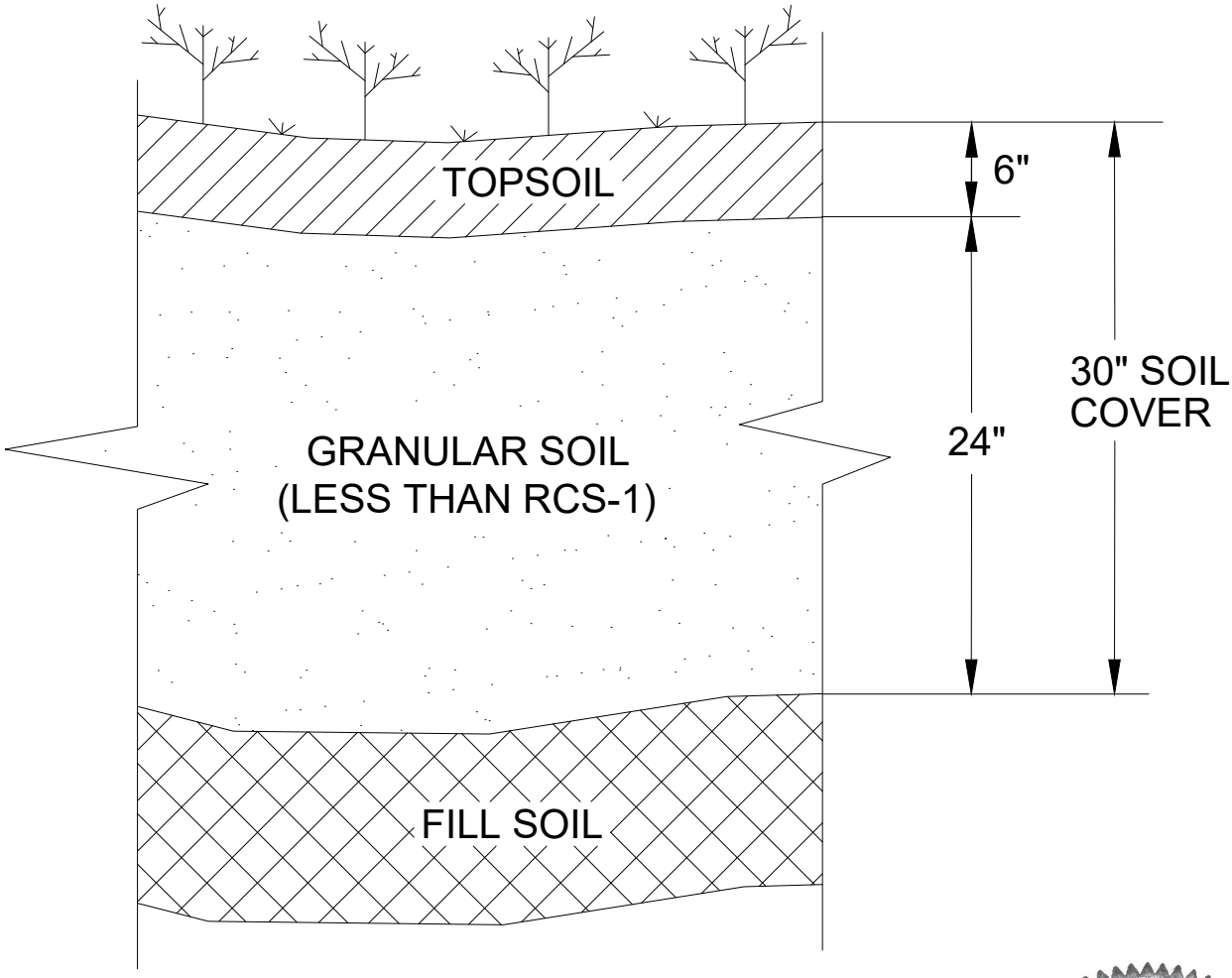
COMMONWEALTH OF MASSACHUSETTS
JOSEPH E. DANUSO III
CIVIL
No. 47166
REGISTERED PROFESSIONAL ENGINEER

drawing name:

EXISTING TOPOGRAPHIC PLAN

drawing number:

Figure 4



TYPICAL CAP SECTION

COMMONWEALTH OF MASSACHUSETTS
JOSEPH E. DANUBIO III
CIVIL
No. 47166
REGISTERED PROFESSIONAL ENGINEER

W. L. FRENCH EXCAVATING CORP.

TYPICAL SECTION OF CAP

RECLAMATION PROJECT

FISH ROAD
DUDLEY, MA

FIGURE 5

DATE: 9/24/2019	PROJECT NUMBER: R18-023	SCALE: 1"= 1'

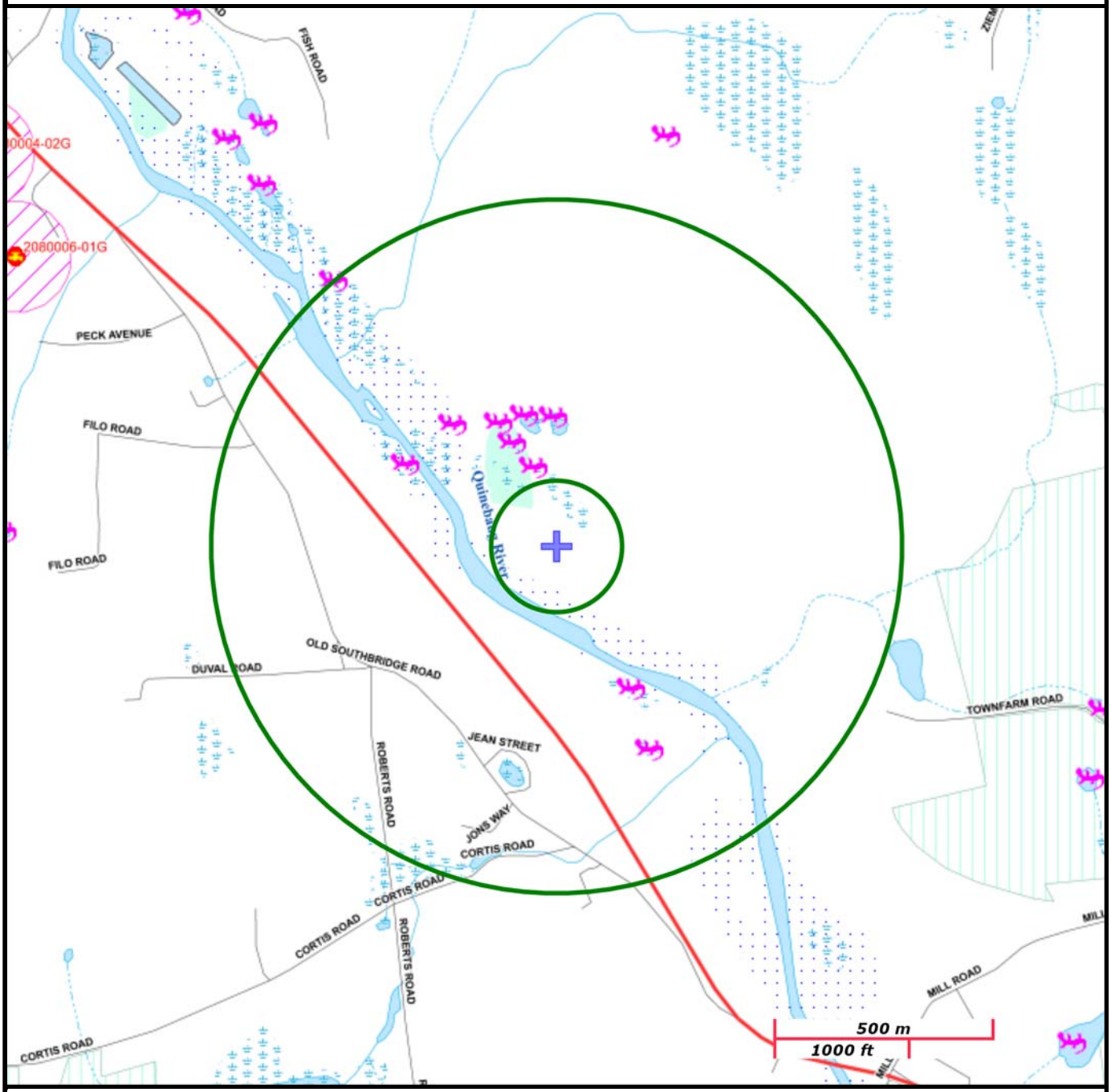
MassDEP - Bureau of Waste Site Cleanup

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radius

Site Information:
FISH ROAD RECLAMATION PROJECT
OFF FISH ROAD DUDLEY, MA
2-000020703
NAD83 UTM Meters:
4658328mN , 254377mE (Zone: 19)
July 1, 2019

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: http://www.mass.gov/mgis/.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers: Medium Yield, High Yield, EPA Sole Source

Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential

Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.

W.L. FRENCH EXCAVATING CORP.

FIGURE 6