

Ayoub Engineering, Inc. 414 Benefit Street Pawtucket, RI 02861

Phone: (401) 728-5533 Fax: (401) 724-1110

Letter of Transmittal

			Date: 06/05/2	2018	Job No: 1702.214
To:	Karon Skim	ner Catrone	Re: Notice	of Intent	
Conservation Agent		on Agent	394 Providence Highway		
	Town of W	estwood	Westw	vood, MA	· -
	50 Carby St	reet			
	Westwood,	MA 02090			
We are sending you: X Attached Under separate cover U.S. Postal Service Overnight 1 X Hand Delivery Other:					vernight mail
The follo	owing:	· · · · · · · · · · · · · · · · · · ·	·	<u> </u>	
Copies	Date		Description		
10	06/05/2018	Notice of Intent Application			
10	05/25/2018	Notice of Intents Plans			
10	12/19/2014	Natural Resource Services, Inc. Wetlar	nds Report		
1	06/04/2018	Wetland Application: Town Clerk	Wetland Application: Town Clerk		
1	06/04/2018	Time Wavier Requirement			
1	06/04/2018	Affidavit of Service			
1		Worksheet for Fees Westwood Wetlands Bylaw – Article 18			
1		Plans Checklist			
1		Certified Abutters and Notice of Intent			
1	06/05/2018	Check #3162 for \$100 payable to Town of Westwood			
1	06/05/2018	Check #3163 for \$262.50 payable to T	own of Westv	vood	
For the p	ourpose of:				
For:	approval	Approved as submitte	d] Return a c	ору
X For	your use	Approved as noted		Prints Ret	urned After Loan to Us
As requested For review and commer		ent	Other:		
Remark	Remarks:				
If there are any questions, please call me at the number above, or email at psylvia@ayoubengineering.com.					
					1
Copy to	··	Signed:	\mathcal{M}	///	
сору и	Paul A. Sylvia, P.E., Project Manager				



eDEP Transaction Copy

Here is the file you requested for your records.

To retain a copy of this file you must save and/or print.

Username: AYOUBENG

Transaction ID: 1018955

Document: WPA Form 3 - NOI

Size of File: 259.79K

Status of Transaction: In Process

Date and Time Created: 6/5/2018:9:59:46 AM

Note: This file only includes forms that were part of your transaction as of the date and time indicated above. If you need a more current copy of your transaction, return to eDEP and select to "Download a Copy" from the Current Submittals page.



Bureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: MassDEP File #: eDEP Transaction #:1018955 City/Town:WESTWOOD

A	.G	en	erai	Int	or	ma	tic	r
-	-		. •					

Project Location:
 a. Street Address

394 PROVIDENCE HIGHWAY

b. City/Town

WESTWOOD

c. Zip Code

02090

d. Latitude

42.21435N

e. Longitude

71.18170W

f. Map/Plat#

24

g.Parcel/Lot#

82

2. Applicant:

☐ Individual ☐ Organization

a. First Name

PAUL

b.Last Name

SYLVIA

c. Organization

AYOUB ENGINEERING, INC.

d. Mailing Address

414 BENEFIT STREET

e. City/Town

PAWTUCKET

f. State RI

g. Zip Code

02861

h. Phone Number

401-728-5533

i. Fax 401-724-1110

j. Email

psylvia@ayoubengineering.com

3. Property Owner:

more than one owner

a. First Name

WILLIAM

b. Last Name

MCDONOUGH

c. Organization

d. Mailing Address

e. City/Town

f.State i. Fax

g. Zip Code j.Email

h. Phone Number

4.Representative: a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h.Phone Number

i.Fax

j.Email

5. Total WPA Fee Paid (Automatically inserted from NOI Wetland Fee Transmittal Form):

a. Total Fee Paid

500.00

b.State Fee Paid

237.50

c.City/Town Fee Paid

262.50

6.General Project Description:

REMOVE EXISTING UNDERGROUND STORAGE TANKS, TANK MAT, AND PIPING. REPLACE WITH TWO NEW DOUBLE-WALL FIBERGLASS 15,000 GALLON UNDERGROUND STORAGE TANKS WITH LATEST SPILL DETECTION AND MITIGATION, NEW TANK MAT, AND NEW PIPING.

7a.Project Type:

1. ☐ Single Family Home

3. ☐ Limited Project Driveway Crossing

7. ☐ Coastal Engineering Structure

5. □ Dock/Pier

2.

Residential Subdivision

4. Commercial/Industrial

6.

☐ Utilities

9. ☐ Transportation

10.

☐ Other



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WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: MassDEP File #: eDEP Transaction #:1018955 City/Town:WESTWOOD

7b.Is any portion of the proposed activity eligible to be treated as a limited project subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

If yes, describe which limited project applies to this project:

2. Limited Project

8. Property recorded at the Registry of Deeds for:

a.County:

b.Certificate:

c.Book:

d.Page:

NORFOLK

6024

859

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1. Buffer Zone & Resource Area Impacts (temporary & permanent):

This is a Buffer Zone only project - Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.

2.Inland Resource Areas: (See 310 CMR 10.54 - 10.58, if not applicable, go to Section B.3. Coastal Resource Areas)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. □ Bank		
	1. linear feet	2. linear feet
b. ☐ Bordering Vegetated Wetland		
	1. square feet	square feet
c. ☐ Land under Waterbodies and Waterways		
	1. Square feet	2. square feet
	cubic yards dredged	
d. ☐ Bordering Land Subject to Flooding	1	2
	1. square feet	2. square feet
	2	
	3. cubic feet of flood storage le	ost 4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet	
	1. square reet	
	2. cubic feet of flood storage l	ost 3. cubic feet replaced
f. □ Riverfront Area	2. cacle feet of flood storage f	3. cubic feet replaced
I. Idventon/Ida	1. Name of Waterway (if any)	i
2. Width of Riverfront Area (check one)	☐ 25 ft Designated Densely	
2 , ,, , 3	□ 100 ft New agricultural p	
	☐ 200 ft All other projects	,
3. Total area of Riverfront Area on the site of the proposed	project	
		square feet
4. Proposed Alteration of the Riverfront Area:		
a. total square feet b. square feet within 100 ft.	c. square feet between 100 ft.	



5. Projects Involves Stream Crossings

Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: MassDEP File #: eDEP Transaction #:1018955 City/Town:WESTWOOD

		and 200 ft.		
5. Has an alternatives analysis been done and is it attached to this NOI?				
6. Was the lot where the activity is proposed created prior to August 1, 1996? ☐ Yes ☐ No				
3.Coastal Resource Areas: (Se	e 310 CMR 10.25 - 10.35)			
Resource Area		Size of Proposed Alteration	Proposed Replacement (if any)	
a. ☐ Designated Port Areas b. ☐ Land Under the Ocean	Indicate size under	Land under the ocean b	pelow,	
	1. square feet			
	2. cubic yards dredged			
c. ☐ Barrier Beaches d. ☐ Coastal Beaches	Indicate size under Coastal Be	eaches and/or Coatstal Dunes, bel	low	
	1. square feet	2. cubic yards beach no	purishment	
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune not	urishment	
f. ☐ Coastal Banks	1. linear feet			
g. ☐ Rocky Intertidal Shores	1. square feet	=		
h. ☐ Salt Marshes	1. square reet			
	1. square feet	2. sq ft restoration, reh	nab, crea.	
i. ☐ Land Under Salt Ponds	1. square feet			
	2. cubic yards dredged			
j. ☐ Land Containing Shellfish	1. square feet			
k. ☐ Fish Runs	Indicate size under Coastal Ba Under Waterbodies and Water	anks, Inland Bank, Land Under therways, above	ne Ocean, and/or inland Land	
	1. cubic yards dredged			
1. Land Subject to Coastal Storm Flowage	1. square feet			
4.Restoration/Enhancement				
☐ Restoration/Replacement				
	of restoring or enhancing a we B.h above, please entered the add	tland resource area in addition to ditional amount here.	the square footage that has been	
a. square feet of BVW	b. s	square feet of Salt Marsh		



Bureau of Resource Protection - Wetlands

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Provided by MassDEP: MassDEP File #: eDEP Transaction #:1018955 City/Town:WESTWOOD

Project Involves Streams Crossings

If the project involves Stream Crossings, please enter the number of new stream crossings/number of replacement stream crossings.

a. number of new stream crossings

b. number of replacement stream crossings

C. Other Applicable Standards and Requirements

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

- Is any portion of the proposed project located in Estimated Habitat of Rare Wildlife as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage of Endangered Species program (NHESP)?

If yes, include proof of mailing or hand delivery of NOI to:

Natural Heritage and Endangered Species

Program

Division of Fisheries and Wildlife

1 Rabbit Hill Road

Westborough, MA 01581

b. Date of map:FROM MAP VIEWER

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18)....

- c. Submit Supplemental Information for Endangered Species Review * (Check boxes as they apply)
 - 1. ☐ Percentage/acreage of property to be altered:
 - (a) within Wetland Resource Area

percentage/acreage

(b) outside Resource Area

percentage/acreage

- 2. Assessor's Map or right-of-way plan of site
- 3. Project plans for entire project site, including wetland resource areas and areas outside of wetland jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **
- a. ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)
- b. ☐ Photographs representative of the site
- c. MESA filing fee (fee information available at: http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/mesa-fee-schedule.html)

Make check payable to "Natural Heritage & Endangered Species Fund" and mail to NHESP at above address

Projects altering 10 or more acres of land, also submit:

- d. \(\tag{Vegetation cover type map of site} \)
- e. T Project plans showing Priority & Estimated Habitat boundaries
- d. OR Check One of the following
 - 1. Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/eea/agencies/dfg/dfw/laws-regulations/cmr/321-cmr-1000-massachusetts-endangered-species-act.html#10.14; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)
 - Z. ☐ Separate MESA review ongoing.



Bureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: MassDEP File #: eDEP Transaction #:1018955 City/Town:WESTWOOD

- a. NHESP Tracking Number
- b. Date submitted to NHESP
- 3. Separate MESA review completed.

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

- * Some projects not in Estimated Habitat may be located in Priority Habitat, and require NHESP review...
- 2. For coastal projects only, is any portion of the proposed project located below the mean high waterline or in a fish run? a. ▼ Not applicable project is in inland resource area only

If yes, include proof of mailing or hand delivery of NOI to either:

South Shore - Cohasset to Rhode Island,

North Shore - Hull to New Hampshire:

and the Cape & Islands:

Division of Marine Fisheries -Southeast Marine Fisheries Station

Attn: Environmental Reviewer 1213 Purchase street - 3rd floor New Bedford, MA 02740-6694 Division of Marine

Fisheries -

North Shore Office Attn: Environmental

Reviewer

30 Emerson Avenue Gloucester, MA 01930

If yes, it may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional office.

3. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

If yes, provide name of ACEC (see instructions to WPA Form 3 or DEP Website for ACEC locations). **Note:** electronic filers click on Website.

- b. ACEC Name
- 4. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
- 5. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L.c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L.c. 130, § 105)?
- 6. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
 - a. Yes, Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
 - 1. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol.2, Chapter 3)
 - 2. A portion of the site constitutes redevelopment
 - 3. Proprietary BMPs are included in the Stormwater Management System



Bureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: MassDEP File #: eDEP Transaction #:1018955 City/Town:WESTWOOD

b. ▼ No, Explain why the project is exempt:

- 1. Single Family Home
- 2. Emergency Road Repair
- 3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department by regular mail delivery.

- 1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the
- Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
- 2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland
- ▼ [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.
- Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s).
- Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
- 4. List the titles and dates for all plans and other materials submitted with this NOI.

a. Plan Title:	b. Plan Prepared By:	c. Plan Signed/Stamped By:	c. Revised Final Date:	e. Scale:
ALTA/ACSM LAND TITLE SURVEY	COMMONWEALTH LAND SURVEYORS, INC.	CURT A. NUNES, PLS	01/22/2014	1"=20'
TANK & PIPING PLAN	AYOUB ENGINEERING, INC.	PAUL A. SYLVIA, PE	04/24/2018	1"=10'
TANK & PIPING STANDARDS	AYOUB ENGINEERING, INC.	PAUL A. SYLVIA, PE	04/24/2018	NOT TO SCALE
TANK ELEVATIONS	AYOUB ENGINEERING, INC.	PAUL A. SYLVIA, PE	04/24/2018	AS NOTED
TANK & PIPING DETAILS	AYOUB ENGINEERING, INC.	PAUL A. SYLVIA, PE	04/24/2018	AS NOTED

- 5. If there is more than one property owner, please attach a list of these property owners not listed on this form.
- 6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
- 7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
- 8. Attach NOI Wetland Fee Transmittal Form.
- 9. Attach Stormwater Report, if needed.

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Bureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: MassDEP File #: eDEP Transaction #:1018955 City/Town:WESTWOOD

Face

Fee Exempt: No filing fee shall be assessed for projects of any city tribe housing authority, municipal housing authority, or the Mass.	y, town, county, or district of the Commonwealth, federally recognized Indian sachusetts Bay Transportation Authority.
Applicants must submit the following information (in addition to page	es 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:
2. Municipal Check Number	3. Check date
4. State Check Number	5. Check date
6. Payer name on check: First Name	7. Payer name on check: Last Name
F. Signatures and Submittal Requirements	
	f Intent and accompanying plans, documents, and supporting data are true ation Commission will place notification of this Notice in a local newspaper s, 310 CMR 10.05(5)(a).
I further certify under penalties of perjury that all abutters were notified of Notice must be made by Certificate of Mailing or in writing by hand deliver of the property line of the project location.	f this application, pursuant to the requirements of M.G.L. c. 131, § 40. ry or certified mail (return receipt requested) to all abutters within 100 feet
Paul A. Sylvia	6/5/2018
1. Signature of Applicant	2. Date
Dennis Darveau	6/5/2018
3. Signature of Property Owner(if different)	4. Date
5. Signature of Representative (if any)	6. Date
For Conservation Commission:	
Two copies of the completed Notice of Intent (Form 3), including support Form, and the city/town fee payment, to the Conservation Commission by	ting plans and documents, two copies of the NOI Wetland Fee Transmittal certified mail or hand delivery.
For MassDEP:	

Other:

If the applicant has checked the "yes" box in Section C, Items 1-3, above, refer to that section and the Instructions for additional submittal requirements.

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a copy of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



Bureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Wetland FeeTransmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: MassDEP File #: eDEP Transaction #:1018955 City/Town:WESTWOOD

A. Applicant Information

		UID.
1	A	licant
- 1	ADD	ncam

a. First Name

PAUL

b.Last Name

SYLVIA

c. Organization

h. Phone Number

AYOUB ENGINEERING, INC.

d. Mailing Address

414 BENEFIT STREET

e. City/Town

PAWTUCKET 4017285533

f. State RI i. Fax 4017241110 g. Zip Code

02861

j. Email

psylvia@ayoubengineering.com

2. Property Owner: (if different)

a. First Name

WILLIAM

b. Last Name

MCDONOUGH

c. Organization

d. Mailing Address

e. City/Town

f.State

g. Zip Code

i. Fax

j.Email

h. Phone Number 3. Project Location:

a. Street Address

394 PROVIDENCE HIGHWAY

b. City/Town

\$237.50

WESTWOOD

Are you exempted from Fee? ☐ (YOU HAVE SELECTED 'NO')

Note: Fee will be exempted if you are one of the following:

- City/Town/County/District
- Municipal Housing Authority
- Indian Tribe Housing Authority
- **MBTA**

State agencies are only exempt if the fee is less than \$100

B. Fees

Activity Type	Activity Number	Activity Fee	RF Multiplier	Sub Total
J.) ANY OTHER ACTIVITY NOT IN CATEGORY 1,3,4,5 OR 6;	1	500.00		500.00
	City/Town	share of filling fee	State share of filing fee	Total Project Fee

\$262.50

\$500.00

MassDEP's Online Filing System

system. You can select "My eDEP" to see a list of your transactions.

Username: AYOUBENG Nickname: BUOYA







DEP Transaction ID: 1018955

Date and Time Submitted: 6/5/2018 9:46:17 AM

Other Email:

Form Name: WPA Form 3 - NOI

Project Location

City/Town Name: WESTWOOD

location: 394 PROVIDENCE HIGHWAY

General Description: REMOVE EXISTING UNDERGROUND STORAGE TANKS, TANK MAT, AND PIPING. REPLACE WITH TWO NEW DOUBLE-WALL FIBERGLASS 15,000 GALLON UNDERGROUND STORAGE TANKS WITH LATEST SPILL DETECTION AND MITIGATION, NEW TANK MAT, AND NEW PIPING.

Applicant Information Name: PAUL SYLVIA

Company: AYOUB ENGINEERING, INC.

Address: 414 BENEFIT STREET, PAWTUCKET, RI, 02861

Payment Information

Your fee for the state share is \$: 237.50

If you have paid by credit card or ACH, thank you for your payment. If you are paying by check or money order, please send your check (payable to the Commonwealth of Massachusetts) to MassDEP, Box 4062, Boston, MA 02211

Additional Forms Submitted WPA Form 3 - NOI (Fee Transmittal)(ONLINE ONLY)

Ancillary Document Uploaded/Mailed

Colbea_Westwood,MA_NOI Plan Set_05-25-2018 NRS Wetlands Report 12-19-14

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TOWN OF WESTWOOD

Commonwealth of Massachusetts

losem F. Previert Chinem in Leo J. Crowe William Stowe Charles Pare



2018 JUN - 5 P 12: 07 I Steven Woodworth, Vice Chair Michael Ferry John C Mpg-WM CLERK TOWN OF WEST WOOD

CONSERVATION COMMISSION

Wetland Permit Application: Town Clerk

Westwood Conservation Commission Westwood Town Hall 50 Carby Street Westwood, MA 02090

Dear Commission:

I here certify that a complete copy of the application and plans submitted to the Westwood Conservation Commission for a permit under the Wetland Protection Act, M.G.L. c. 131, s40 and/or the Westwood Wetlands Protection ByJaW, Article 18 has been filed with the Westwood Town Clerk.

The application was submitted to the Town Clerk on (date)
11/1/// 0/4/18
Applicant's of Representative's Signature Date 1
Applicant's Name Bul Sylvia, P.E. Ayoub Engineering, Inc
Project Location: 394 Providence Wichway
Project Location: 974 170 Vidence TY (shway
Project Type: Notice of Intent New Tanks and Pipins
New Tanks and Piping
, ()

TOWN OF WESTWOOD

Commonwealth of Massachusetts

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Steven Woodworth, Vice Chair Michael Terry John C. Masterson

CONSERVATION COMMISSION

Time Waiver Requirement

Westwood Conservation Commission Westwood Town Hall 50 Carby Street Westwood, MA 02090

Dear Commission:

I hereby waive the benefit of the time requirements set forth in Chapter 131 s. 40, (Wetland Protection Act) of the Massachusetts General Laws, 310 CMR. 10.00 Regulations, and the Town of Westwood Wetlands Protection By-Law, which require the Conservation Commission to convene a hearing and issue a Determination or Order within the time periods specified therein.

The public hearing shall be scheduled for the next available time slot on the meeting agenda upon receipt of the filing of a COMPLETE Notice of Intent or Request for Determination of Applicability.

The Order of Conditions or Determination of Applicability shall be issued within 45 days of the close of

he public hearing. Applicant's or Represent	ative's Signature Date
Applicant's Name	Paul Sylvia P.E. Ayoub Engineering, Inc. 394 Providence Highway
Project Location:	394 Providence Wishway
Project Type:	Notice of Intent New Tanks and Piping
	New lanks and Piping

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetland Protection Act and

The Town of Westwood Wetlands Protection Bylaw and Regulations

(To be submitted to the *Massachusetts Department of Environmental Protection* and the Conservation Commission when filing a Notice of Intent)

I, Paul Sylvia, P.E./Ayoub Engineering, Inc., here-by certify under the pains and penalties of perjury that on or before June 27, 2018, I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act by Paul Sylvia, P.E./Ayoub Engineering, Inc., with the Westwood Conservation Commission on June 27, 2018 for property located at 394 Providence Highway in Westwood, Massachusetts.

The form of notification, and a list of the abutters to whom it was given and their addresses are attached to this Affidavit of Service.

Sibned:

Dated:

Worksheet for Fees Westwood Wetlands Bylaw – Article 18 (in Addition to DEP filing Fees)

Applicant: Ayoub Engineering, Ir	nc.
Address: 414 Benefit Street, Pav	vtucket, RI 02861
Location of Project: 394 Providen	ce Highway, Westwood, MA Map 24 Lot 82
Notice of Intent	
	X \$100.00
	\$250.00 plus \$1.00 additional sq. ft.
	\$500.00 plus \$1.00 per 10 sq. ft. of disturbance
•	\$750.00 plus \$5.00 per road sideline in resource or buffer zone
5. Drainage detention/retention	\$750.00 plus \$1.00 per 10cf. of basin in resource or buffer zone
	\$500.00 plus \$100.00/unit and \$1.00 per 10 sq n. of disturbance
7. Commercial institutional, industrial	\$750.00 plus \$1.00 per 10 sq. ft. of disturbance
8. Request for Det. of Applicability	@ \$50.00
9. ANORAD	\$750.00 plus \$1.00 per 10 sq. ft. of disturbance
10. Application filed after enforcement _	Double application fees
11. Amendments	\$100.00
12. Certificate of Compliance	
Residence	\$100.00
Non Residence	\$100.00
Commercial or subdivision	\$200.00
13. Emergency Certificate	\$100.00
14 Agent Site Visit	
14. Agent Site Visit Resident	\$25.00 per hour
Non Resident	\$45.00 per hour
, ton nondon	
Total \$ 10	00.00

See Westwood Wetlands Protection Bylaw Regulations for more detail.

Page 1

Plans Checklist to Accompany DEP Application for Notice of Intent (NOI)

THIS PAGE MUST BE INCLUDED WITH YOUR NOI APPLICATION. All applicable boxes must be marked with 🖂 or identified as "NIA". This is a Bylaw Supplemental form to aid you in submitting complete and appropriate information on your plans.

		Ky Property Owner Name(s), address and phone
(Mexisting contours (black dashed line)	(:	X Location/Street name and number- Minst orbin from Assessor's Office if new lot oncr to submission of NOI
	constitute of the second	Assessor Map and Lot number(s) (All lots on which there will be activity, be
Xexisting structure(s) with natural and illeliminate leathers		must listed on the plan with appropriate Registry info BK/Pg or Cert. #)
⊠existing rights-of-way, easements, ancient ways or other deeded ways	incient ways or other deeded ways	X plan preparer's name, title and company/firm name
$N/\!\!\!\!/-\!\!\!\!/-\!\!\!\!\!/-\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	tandard engineering symbols/notations)	风date plan prepared
又name of Wetland Specialist responsible for i	ible for identifying wetland boundaries	///←□proposed contours (black solid line)
State wetland was flagged (must be no more	no more than 3 yrs. prior to current date?)	\mathcal{N}/\mathcal{A} proposed structure(s) (including driveway work, septic components, etc.) ³
Xwetland boundaries with flag #'s (highlighted blue)	ghlighted blue)	$M\!\!\!/\!\!\!/\!\!\!/\!\!\!/$ Dproposed location of utility lines
Xnotations identifying all wetland types (include potential or certified vernal pools	98 rmal pools w/ 100° habitat area highlighted in green).	\mathcal{W} Derosion control line (highlighted red) with erosion control material detail
X100 ft Buffer zone to wetlands (solid green line)	green line)	\mathcal{N}_{A} [Himit of Work line (solid red line- may be same as erosion control line)
$\mathcal{N}/\!\!\!\!/ \; \square$ 10 ft no-structure setback to wetlands (dashed green line)	nds (dashad green line)	///【 □conservation post locations (solid square symbol to indicate location of posts
$\mathcal{N}/\mathcal{A} \square$ 35 ft no-disturbance setback to wetland (dashed green line)	land (dashed green line - · ·)	$\mathcal{N}/\!\!\!/_{\mathbf{L}}$ Conservation post detail and plague detail (∞ py available on website)
N/A \Box floodplain thightighted of anyer per FEMA flood plain maps. (If applicable)	EMA flood plain maps (if applicable)	$\mathcal{N}/4$ Diocation of temporary stockpiles w/ notation of content (e.g. exceveted soils)*
N/N \square Annual MHW line to Riverfront area (purple solid line) labeled w/ name of River	(purple solid line) labeled w/ name of River	N/A —thyselfs to stompates not off are required for all structures requiring a finishing N/A . Each construction of a structure of a str
N/A □200 ft. and 100 ft. Riverfront areas (purple dashed line) (if applicable)		$\mathcal{N}/4$ []drywell construction detail (copy available on website)
$\sqrt{//L}$ wetland fill and replication areas (yellow for filled area, <u>presentations</u>)	llow for filled area, president curries)	11/1/4 Indetail showing the access pathway to work area
W/A ☐shortest distances to all resource areas from	eas from closest proposed structure (use	$\mathcal{M}/\!\!\!/\Box$ crushed stone apron onto property as per DPW standards
\mathcal{N}/A Distributest distances to all resource areas from materials	eas from closest point of erosion control	Xignature and stamp of licensed surveyor or professional engineer
certify that the above checked items have bee	n completed and understand that incomplete applica	I certify that the above checked items have been completed and understand that incomplete applications are cause for scheduling delays/continuations of public hearings.
S S S S S S S S S S S S S S S S S S S	F	Title:
Coulding		

¹ Other documents are required with the application packet- see Submittal Requirements form.

² Wetland delineation more than three years old is not acceptable for plan submission to the Cons. Commission. Call the Cons. Office for further details.
³ For Septic upgrades, show location of all features to be abandoned including detail notations. For structure demolition, show existing structural footprint.

depending on the content and size, stockpiles, even temporary piles, may require erosion control at base.



TOWN OF WESTWOOD BOARD OF ASSESSORS

580 High St. Westwood, MA 02090

Maureen Bleday Philip N. Shapiro Mark F. Murphy

phone: 781-326-1904 fax: 781-251-2588

May 29, 2018

Jeffrey White Ayoub Engineering, Inc.

Mr. White:

Attached please find a list of abutters to abutters within 300' of the locus,

• 394 Providence Highway, Map 24 Lot 082

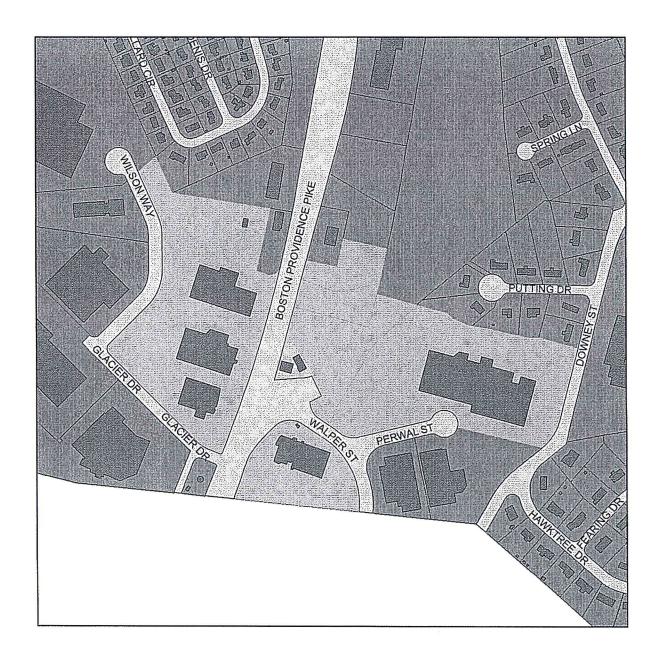
This list reflects owners of record as of January 1, 2018 or current owners, according to our records.

Sincer

Mark F. Murphy Assessor

jb

ABUTTERS MAP - 394 PROVIDENCE HIGHWAY



MAP 24 LOT 082
VISION APPRAISAL TECHNOLOGY



ABUTTERS LIST FOR 394 PROVIDENCE HIGHWAY WESTWOOD, MA

MAP & LOT OWNER	OWNER	CO-OWNER	Mailing Address	city	St Zip	Location
24002	AMR REAL ESTATE HOLDINGS		425 PROVIDENCE HIGHWAY	WESTWOOD	MA 02090	375-411 PROVIDENCE HWY
24079	TOWN OF WESTWOOD		580 HIGH ST	WESTWOOD	MA 02090	PROVIDENCE HWY
24080	TOWN OF WESTWOOD		580 HIGH ST	WESTWOOD	MA 02090	PROVIDENCE HWY
24081	TOWN OF WESTWOOD		580 HIGH ST	WESTWOOD	MA 02090	PROVIDENCE HWY
24082	MCDONOUGH WILLIAM R	COLBEA ENTERPRISES LLC	REAL ESTATE DEPT	CRANSTON	RI 02921-2062	02921-2062 394 PROVIDENCE HWY
24083	RTE ONE MANAGEMENT LD TRU		1039 EAST ST	DEDHAM	MA 02026	420 PROVIDENCE HWY
24086	333 BRAZILIAN AVE LLC	C/O RJ KELLY COMPANY,	INC 55 CAMBRIDGE STREET	BURLINGTON	MA 01803	30 PERWAL ST

24/ 079/ / / TOWN OF WESTWOOD 580 HIGH ST WESTWOOD, MA 02090

5160°

24/ 080/ / /
TOWN OF WESTWOOD
580 HIGH ST
WESTWOOD, MA 02090

24/ 081/ / /
TOWN OF WESTWOOD
580 HIGH ST
WESTWOOD, MA 02090

24/ 082/ / / MCDONOUGH WILLIAM R COLBEA ENTERPRISES LLC REAL ESTATE DEPT 2050 PLAINFIELD PIKE CRANSTON, RI 02921-2062

24/ 083/ / /
RTE ONE MANAGEMENT LD TRUST LLC
1039 EAST ST
DEDHAM, MA 02026

24/ 002/ / / AMR REAL ESTATE HOLDINGS - WESTW(425 PROVIDENCE HIGHWAY WESTWOOD, MA 02090

24/ 086/ / / 333 BRAZILIAN AVE LLC C/O RJ KELLY COMPANY, INC. 55 CAMBRIDGE STREET BURLINGTON, MA 01803

AYOUB ENGINEERING, INC. ENGINEERING AND ARCHITECTURAL CONSULTANTS

FACSIMILE TRAN	SMITTAL SHEET
TO: Assessor's Office	FROM: Teffrey White
FAX NUMBER: 781-2588	DATE: 5/29/18
COMPANY: Vestwood	TOTAL NO. OF PAGES INCLUDING COVER:
PHONE NUMBER:	SENDER'S REFERENCE NUMBER: 1702.214
RE: Nouter hist Request	YOUR REFERENCE NUMBER:
URGENT FOR REVIEW PLEASE COM	MMENT PLEASE REPLY PLEASE RECYCLE
NOTES/COMMENTS:	
Elease Confac	tous office
Elease Confac When list is Comp	elete.

BOARD OF ASSESSORS 580 High St. Westwood, Ma. 02090

Fax: 781-251-2588

ABUTTERS LIST REQUEST Please allow 10 business days for final list

PARCEL REQUESTED: Map 24 Lot 82
PARCEL REQUESTED: Map 24 Lot 82
RECORD OWNER: William McDonough
FOR WHICH BOARD: Conservation Commission
REASON FOR REQUEST: Proposing work within 100 feet of wetland
PROJECT TYPE: UST/Tank replacement/Tank mat and piping replacement
CONTACT PERSON: Jeff White/Ayoub Engineering, Inc.
TELEPHONE NUMBER: 401–728–5533
SIGNATURE: Office May 29, 2018
Jeffrey White Ayoub Engineering, Inc.

^{*} Forward this completed request to the Assessor's Office ASAP

Upon receipt of the certified abutter's list – send abutter's notification (next sheet) to all abutters.

TRANSMISSION VERIFICATION REPORT

TIME : 03/28/2013 23:08 NAME : AYOUB ENG FAX : 4017241110 TEL : 4017285533 SER.# : U63274A3J332756

DATE,TIME FAX NO./NAME DURATION PAGE(S) RESULT MODE

03/28 23:07 17812512588 00:00:43 02 OK STANDARD



Natural Resource Services, Inc.

December 19, 2014

Alan Micale, PE Ayoub Engineering, Inc. 414 Benefit Street Pawtucket, RI 02861

RE: Wetland Consulting Services; 394 Providence Highway, Westwood, Massachusetts

Dear Mr. Micale,

Natural Resource Services, Inc. (NRS) has performed the site inspection on the above referenced property. The purpose of the inspection was to determine if jurisdictional wetlands or regulatory setbacks exist within the above referenced property. This site visit was made on December 17, 2014. This inspection was done in accordance with the standards established in the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, sec. 40) and the Westwood Wetlands Regulations as administered under the authority of the Town of Westwood Conservation Commission. These regulations state that all delineations performed by consultants are not to be considered valid until reviewed and approved by the conservation commission.

In my opinion, the property consists entirely of upland. This property is the location of a gas station and is situated on the east side of Route 1. The property is surrounded by O' Toole park conservation area. There is a perennial river that flows through the conservation area with an associated bordering vegetated wetland (BVW) that exists north and east of the subject parcel. These wetland features are off-property and therefore flags were not hung to delineate their locations. However I have used a sub-meter Trimble GeoXT handheld GPS unit to locate the approximate location of the BVW. The river appears to be far enough off-site not to incur any setback onto the property.

In accordance with the MA Wetlands Protection Act and Westwood wetlands bylaw, the BVW edge is afforded a 100 foot buffer zone and the bank of the river is afforded a 200 foot riverfront area. It appears a portion of the property is impacted by the 100 foot buffer zone but not the riverfront area. It is also important to note that the Town of Westwood Wetland Atlas Maps (2010) shows the lot being within a 100 year floodplain. Any work proposed that may alter the buffer zone will require special consideration and will require review and permit from the Town of Westwood Conservation Commission.

Please do not hesitate to contact me should you have any questions regarding the work performed or require any additional information.

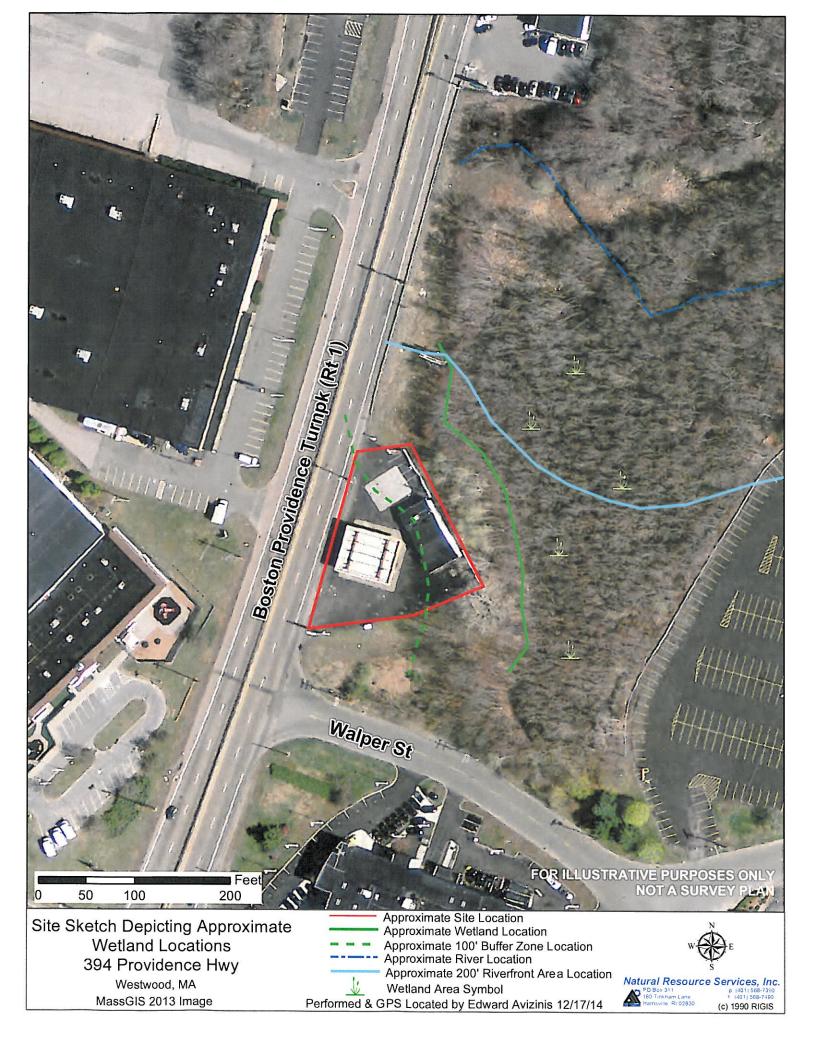
Truly yours,

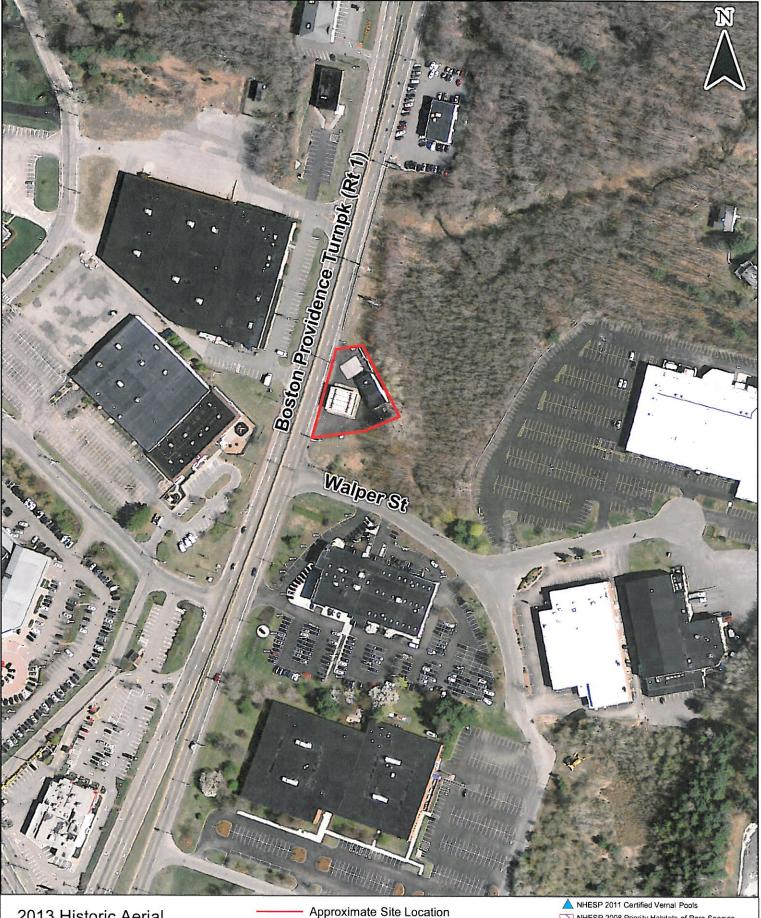
Edward J. Avizinis

Wetland Biologist/Soil Scientist

Enclosures: 2013 Aerial Photograph, USDA Soil Map, and USGS Topographic Map

NRS file# 14-314





2013 Historic Aerial 394 Providence Hwy

> Westwood, MA MassGIS 2013 Image

This map references The Massachusetts Natural Heritage & Endangered Species Program layers.

Any such areas designated by the program are depicted.

■ Feet 0 100 200 400

NHESP 2008 Priority Habitats of Rare Species

NHESP 2008 Estimated Habitats of Rare Wildlife

NHESP 2018 Estimated Habitats of Nare Wildlife

NHESP 2010 Potential Vernal Pools

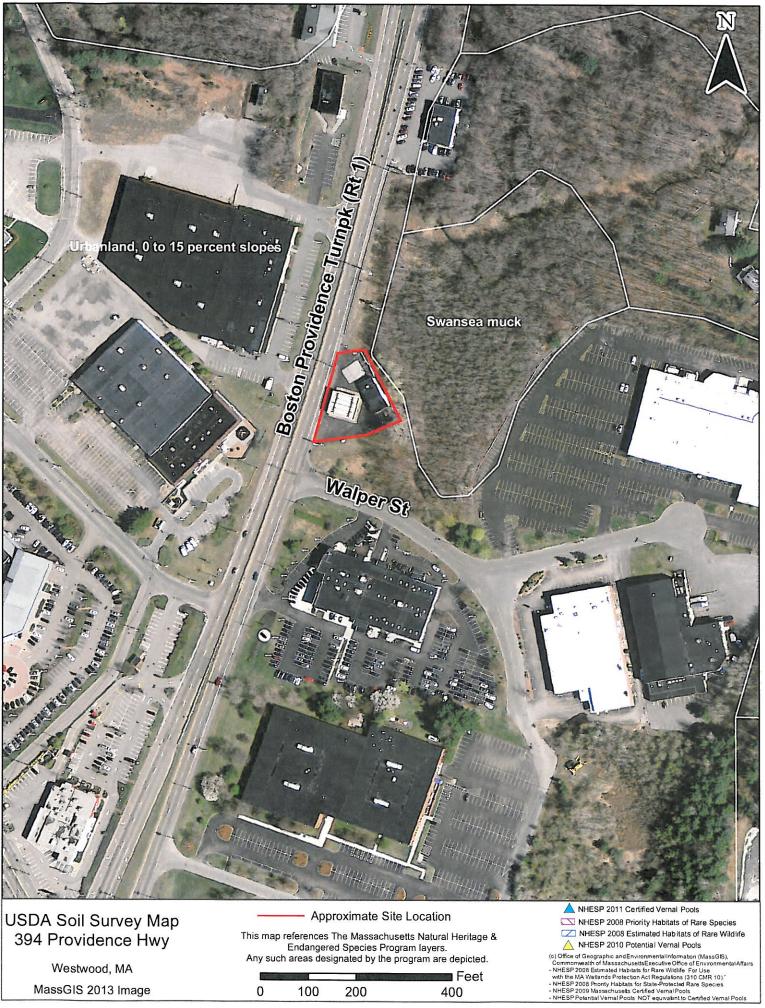
(c) Office of Geographic and Environmental Information (MassGS).
Commonwealth of MassachusettsExecutive Office of Environmental Affairs

- NHESP 2008 Estimated Habitats for Rare Wildlife For Use
with the MA Wetlands Protection Act Regulations (310 CMR 10).

- NHESP 2009 Massachusets Certified Vernal Pools

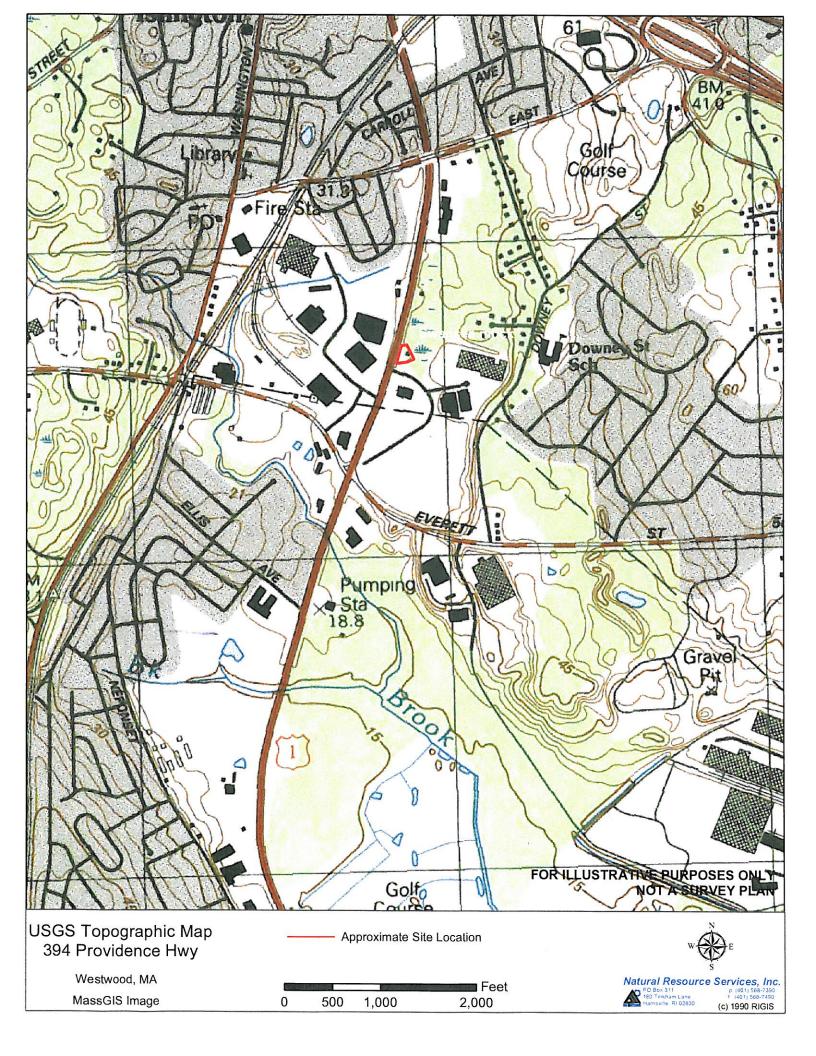
- NHESP 2009 Massachusets Certified Vernal Pools

- NHESP Potential Vernal Pools NOT equivalent to Certified Vernal Pools



MassGIS 2013 Image

■ Feet 100 200 400



NOTICE OF INTENT PLANS

PREPARED FOR:

COLBEA ENTERPRISES, LLC

2050 PLAINFIELD PIKE, CRANSTON, RI 02921

LOCATION:

394 PROVIDENCE HIGHWAY WESTWOOD, MA

ARCHITECTURAL & CIVIL PREPARED BY:

AYOUB
ENGINEERING

ENGINEERS & ARCHITECTS

414 BENEFIT STREET P.O. Box 514
PAWTUCKET, RHODE ISLAND 02861 EXETER, NEW HAMPSHIRE 03833
401-728-5533 603-765-1001

INDEX OF DRAWINGS

SHEET TITL

GENERAL COVER

CIVIL

1 ALTA/ACSM LAND TITLE SURVEY

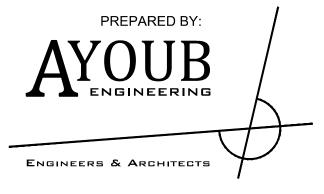
TANK ELEVATIONS

TK-1 TANK & PIPING PLAN
TK-2 TANK & PIPING STANDARDS

TK-4 TANK & PIPING DETAILS

COLBEA ENTERPRISES, LLC

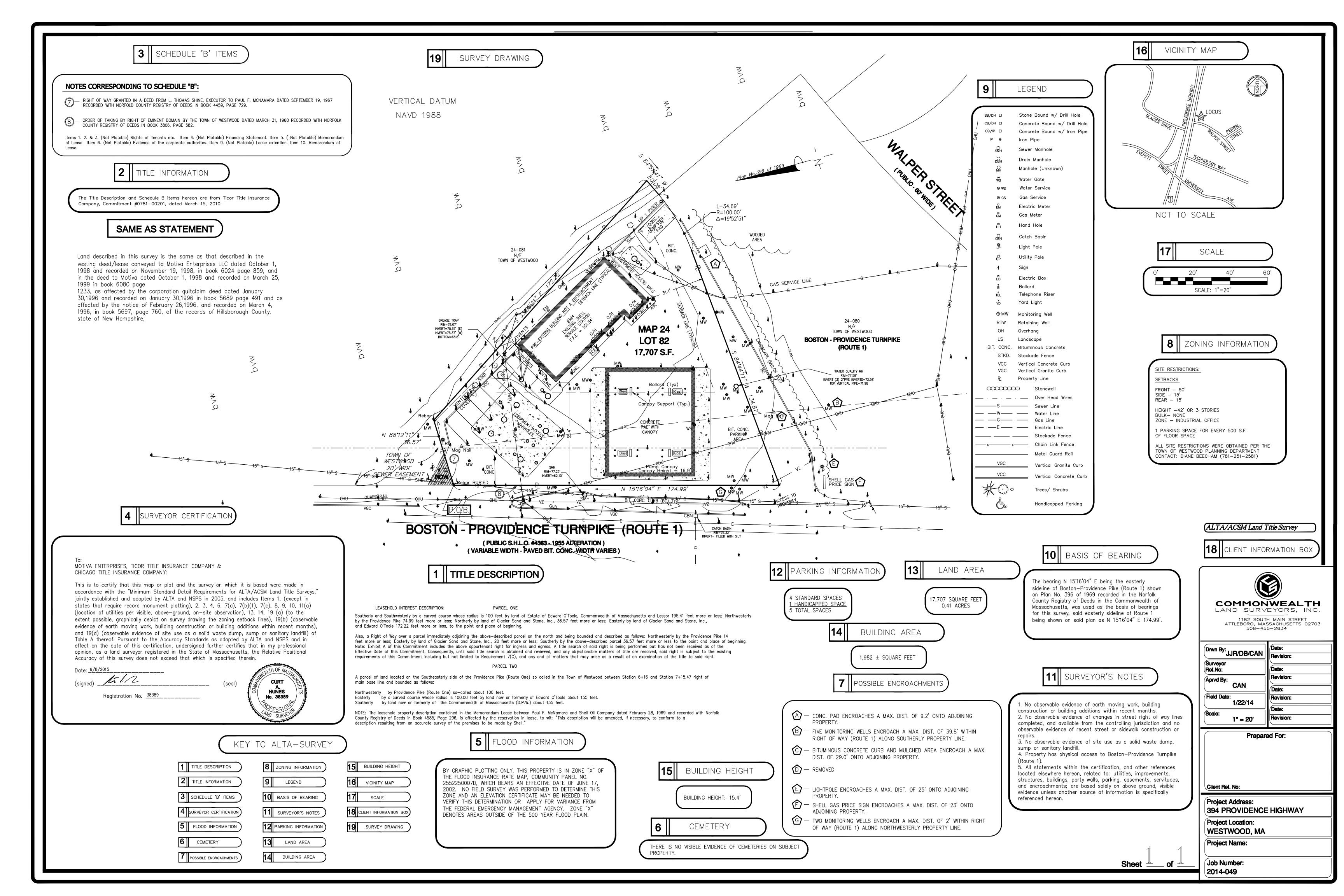
394 PROVIDENCE HIGHWAY WESTWOOD, MA

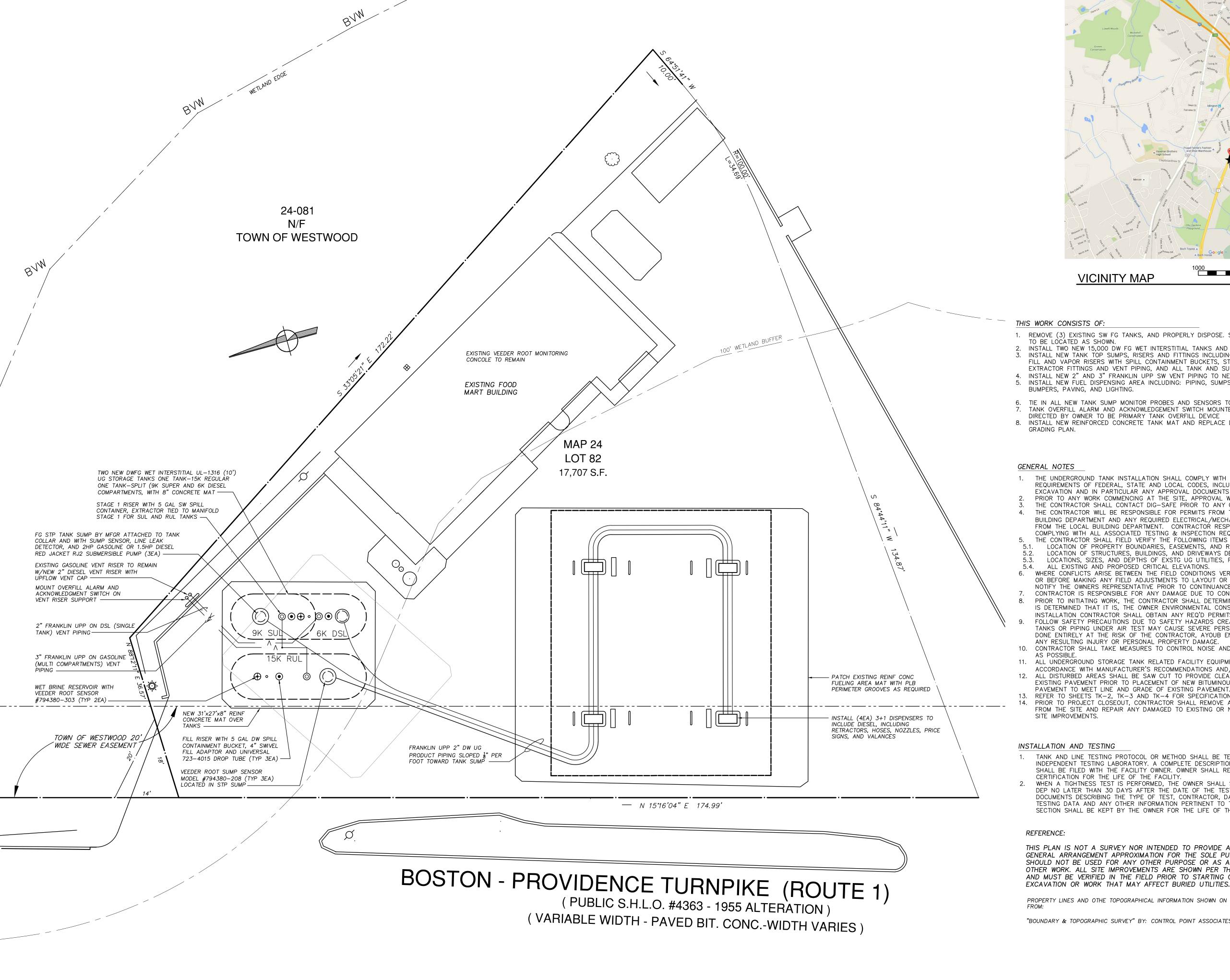


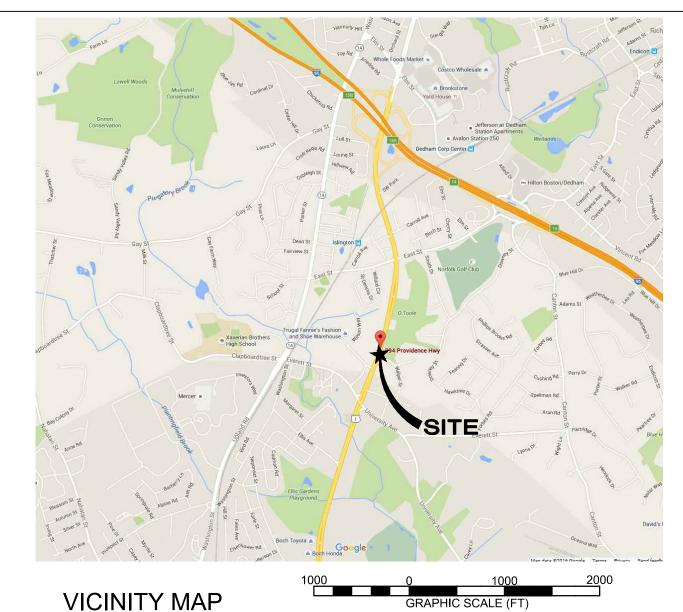
414 BENEFIT STREET PAWTUCKET, RHODE ISLAND 02861

P.O. Box 514 Exeter, New Hampshire 03833

PROJECT NO. 1702.214 DATE: 05/25/18







THIS WORK CONSISTS OF:

- REMOVE (3) EXISTING SW FG TANKS, AND PROPERLY DISPOSE. SHORE AND EXCAVATE FOR NEW TANKS TO BE LOCATED AS SHOWN.
- INSTALL TWO NEW 15,000 DW FG WET INTERSTITIAL TANKS AND PROPERLY ANCHOR AND BACKFILL. INSTALL NEW TANK TOP SUMPS, RISERS AND FITTINGS INCLUDING TANK PROBES, SUBMERSIBLE PUMPS, FILL AND VAPOR RISERS WITH SPILL CONTAINMENT BUCKETS, STRAIGHT DROP TUBES, VAPOR EXTRACTOR FITTINGS AND VENT PIPING, AND ALL TANK AND SUMP MONITORS AND SENSORS.
- INSTALL NEW 2" AND 3" FRANKLIN UPP SW VENT PIPING TO NEW VENT RISERS. INSTALL NEW FUEL DISPENSING AREA INCLUDING: PIPING, SUMPS, ISLANDS, DISPENSERS, CANOPY, BUMPERS, PAVING, AND LIGHTING.
- 6. TIE IN ALL NEW TANK SUMP MONITOR PROBES AND SENSORS TO EXISTING VEEDER ROOT. TANK OVERFILL ALARM AND ACKNOWLEDGEMENT SWITCH MOUNTED AT VENT RISERS OR BUILDING AS
- DIRECTED BY OWNER TO BE PRIMARY TANK OVERFILL DEVICE 8. INSTALL NEW REINFORCED CONCRETE TANK MAT AND REPLACE DISTURBED PAVING TO MATCH SITE GRADING PLAN.

GENERAL NOTES

- 1. THE UNDERGROUND TANK INSTALLATION SHALL COMPLY WITH ALL APPLICABLE REGULATIONS, ALL REQUIREMENTS OF FEDERAL, STATE AND LOCAL CODES, INCLUDING OSHA STANDARDS REGARDING EXCAVATION AND IN PARTICULAR ANY APPROVAL DOCUMENTS OR CONDITIONS FROM THE MA DEP. PRIOR TO ANY WORK COMMENCING AT THE SITE, APPROVAL WILL BE OBTAINED FROM MA DEP THE CONTRACTOR SHALL CONTACT DIG-SAFE PRIOR TO ANY CONSTRUCTION EXCAVATION
- THE CONTRACTOR WILL BE RESPONSIBLE FOR PERMITS FROM THE LOCAL FIRE MARSHAL AND/OR BUILDING DEPARTMENT AND ANY REQUIRED ELECTRICAL/MECHANICAL OR OTHER TRADE PERMITS FROM THE LOCAL BUILDING DEPARTMENT. CONTRACTOR RESPONSIBLE FOR DETERMINING AND COMPLYING WITH ALL ASSOCIATED TESTING & INSPECTION REQUIREMENTS. THE CONTRACTOR SHALL FIELD VERIFY THE FOLLOWING ITEMS PRIOR TO CONSTRUCTION:
- LOCATION OF PROPERTY BOUNDARIES, EASEMENTS, AND RIGHT OF WAYS. LOCATION OF STRUCTURES, BUILDINGS, AND DRIVEWAYS DEPICTED ON THE PLANS. LOCATIONS, SIZES, AND DEPTHS OF EXSTG UG UTILITIES, PIPING, STRUCTURES, TANKS, ETC.. 5.4. ALL EXISTING AND PROPOSED CRITICAL ELEVATIONS.
- 6. WHERE CONFLICTS ARISE BETWEEN THE FIELD CONDITIONS VERIFIED AND PROPOSED CONSTRUCTION, OR BEFORE MAKING ANY FIELD ADJUSTMENTS TO LAYOUT OR GRADES, THE CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE PRIOR TO CONTINUANCE OF WORK. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONSTRUCTION ACTIVITIES.
- 8. PRIOR TO INITIATING WORK, THE CONTRACTOR SHALL DETERMINE IF DEWATERING MAY BE REQ'D. IF IT IS DETERMINED THAT IT IS, THE OWNER ENVIRONMENTAL CONSULTANT IN COORDINATION WITH THE INSTALLATION CONTRACTOR SHALL OBTAIN ANY REQ'D PERMITS PRIOR TO PROCEEDING.
- FOLLOW SAFETY PRECAUTIONS DUE TO SAFETY HAZARDS CREATED BY AIR TESTING, FAILURE OF TANKS OR PIPING UNDER AIR TEST MAY CAUSE SEVERE PERSONAL INJURY OR DEATH. TESTING IS DONE ENTIRELY AT THE RISK OF THE CONTRACTOR, AYOUB ENGINEERING IS NOT RESPONSIBLE FOR
- ANY RESULTING INJURY OR PERSONAL PROPERTY DAMAGE. 10. CONTRACTOR SHALL TAKE MEASURES TO CONTROL NOISE AND DUST TO AS GREAT AS AN EXTENT
- 11. ALL UNDERGROUND STORAGE TANK RELATED FACILITY EQUIPMENT SHALL BE INSTALLED IN
- ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND/OR SPECIFICATIONS. 12. ALL DISTURBED AREAS SHALL BE SAW CUT TO PROVIDE CLEAN, SMOOTH EDGE. TACK COAT EXPOSED EXISTING PAVEMENT PRIOR TO PLACEMENT OF NEW BITUMINOUS CONCRETE PAVEMENT. NEW
- 13. REFER TO SHEETS TK-2, TK-3 AND TK-4 FOR SPECIFICATIONS AND DETAILS. 14. PRIOR TO PROJECT CLOSEOUT, CONTRACTOR SHALL REMOVE ALL DEBRIS AND EXCESS MATERIALS FROM THE SITE AND REPAIR ANY DAMAGED TO EXISTING OR NEWLY INSTALLED EQUIPMENT OR OTHER SITE IMPROVEMENTS.

INSTALLATION AND TESTING

- 1. TANK AND LINE TESTING PROTOCOL OR METHOD SHALL BE TESTED AND CERTIFIED BY AN INDEPENDENT TESTING LABORATORY. A COMPLETE DESCRIPTION OF THE METHOD OR PROTOCOL SHALL BE FILED WITH THE FACILITY OWNER. OWNER SHALL RETAIN THE DESCRIPTION AND
- 2. WHEN A TIGHTNESS TEST IS PERFORMED, THE OWNER SHALL SEND A TIGHTNESS REPORT TO THE MA DEP NO LATER THAN 30 DAYS AFTER THE DATE OF THE TEST. THE TEST REPORT AND OTHER DOCUMENTS DESCRIBING THE TYPE OF TEST, CONTRACTOR, DATE, MATERIALS, ALL TECHNICIAN TESTING DATA AND ANY OTHER INFORMATION PERTINENT TO THE WORK PERFORMED UNDER THIS SECTION SHALL BE KEPT BY THE OWNER FOR THE LIFE OF THE SYSTEM.

REFERENCE:

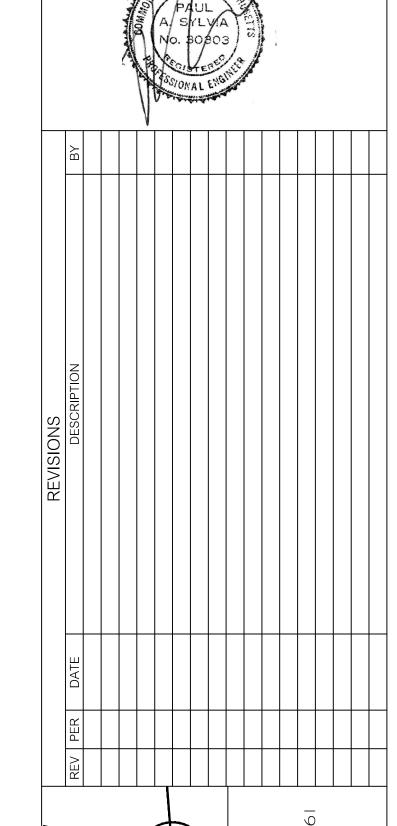
THIS PLAN IS NOT A SURVEY NOR INTENDED TO PROVIDE ANY SITE INFORMATION OTHER THAN GENERAL ARRANGEMENT APPROXIMATION FOR THE SOLE PURPOSE OF UST RELATED WORK. IT SHOULD NOT BE USED FOR ANY OTHER PURPOSE OR AS A SITE LAYOUT REFERENCE FOR ANY OTHER WORK. ALL SITE IMPROVEMENTS ARE SHOWN PER THE BEST AVAILABLE INFORMATION AND MUST BE VERIFIED IN THE FIELD PRIOR TO STARTING CONSTRUCTION, PARTICULARLY ANY EXCAVATION OR WORK THAT MAY AFFECT BURIED UTILITIES.

PROPERTY LINES AND OTHE TOPOGRAPHICAL INFORMATION SHOWN ON THIS DRAWING DRAWING WERE TAKEN

"BOUNDARY & TOPOGRAPHIC SURVEY" BY: CONTROL POINT ASSOCIATES, INC., SCALE: 1"=20', DATE: 06/29/16.

YOUB ENGINEERING EXPRESSLY DISCLAIMS ANY RESPONSIBILITY FOR MONITORING, INSPECTING, OBSERVING, OR SUPERVISING CONSTRUCTION SERVICES, OR THE MEANS, METHODS, SEQUENCES AND TECHNIQUES OF CONSTRUCTION OR FOR JOB SITE SAFETY AND PROGRAMS FOR THE PROJECT DEFINED BY THE PLANS FOR WHICH THIS CERTIFICATION IS AFFIXED. AYOUB HAS NOT BEEN RETAINED FOR NOR SHALL IT HAVE ANY CONTROL OVER OR BE IN CHARGE OF ACTS OR OMISSIONS OF ANY CONTRACTOR, SUBCONTRACTOR, OTHER AGENTS OR EMPLOYEES OR OF ANY OTHER PERSONS PERFORMING PORTIONS OF THE WORK.

DRAWINGS, DOCUMENTS, AND OTHER ITEMS PREPARED BY AYOUB ENGINEERING, INC. (AYOUB) ARE NOT INTENDED FOR RE-USE BY THE CLIENT, OR FOR OTHER PROJECTS, ANY MEDIA PREPARED BY AYOUB ARE SUBJECT TO USE ONLY BY EXPRESS WRITTEN PERMISSION BY AYOUB, AND IS NOT CONSIDERED THE CLIENT'S PROPERTY. IN THE EVENT THE CLIENT UTILIZES THIS INFORMATION WITHOUT WRITTEN PERMISSION, OR UTILIZES ANY OF THE WORK PRODUCT IN ANY FASHION SPECIFICALLY NOT AUTHORIZED BY AYOUB. THE CLIENT DOES SO AT THEIR OWN RISK AND AGREES TO DEFEND, INDEMNIEY AND HOLD AYOUB HARMLESS FOR ANY DAMAGES OR CLAIMS THAT



PRIS $\sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum$

1"=10'

PROJECT NO. 1702.114 SCALE: DRAWN BY: 04/24/2018

LAYOUT OF PROPOSED REPLACEMENT TANKS AND PIPING

SCALE 1"=10

<u>. GENERAL</u>

- 1.2 THESE TYPICAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH OTHER PROJECT DOCUMENTS AND MAY BE SUPERCEDED BY OTHER OWNER REQUIREMENTS OR SPECIFICATIONS FOR THIS PROJECT. CONTRACTOR TO REFER TO THE CONTRACT DOCUMENTATION AS TO SPECIFIC PROJECT SCOPE AND REQUIREMENTS.
- 1.3 ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE PERMITS AND REGULATIONS, OSHA REGULATIONS, AND AMERICAN PETROLEUM INSTITUTE (API) RECOMMENDED PRACTICES. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING ALL WORK IS CONDUCTED IN A SAFE MANNER. THE OWNER AND DESIGN PROFESSIONALS PREPARING DRAWINGS AND SPECIFICATIONS ARE NOT RESPONSIBLE FOR ENSURING THAT THE PROJECT IS COMPLETED SAFELY AND ANY COMMENTS OR REQUIREMENTS MADE BY THE OWNER OR DESIGN PROFESSIONAL REGARDING SAFETY DO NOT CONSTITUTE AN ACCEPTANCE OF RESPONSIBILITY FOR SAFETY ISSUES. THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY UNSAFE SPECIFICATIONS OR EQUIPMENT BEFORE INSTALLATION BEGINS. CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO SAFE COMPLETION OF ALL ACTIVITIES THAT INCLUDE HAZARDOUS MATERIALS, HOT WORK, WORK AT HEIGHTS, EXCAVATION, CRANE OR LIFTING WORK, ELECTRICAL WORK, HIGH PRESSURE WORK, ETC.
- 1.4 THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL TRADE PERMITS AND ENSURING THAT ALL PERMITS AND APPROVALS NECESSARY TO START WORK ARE OBTAINED. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL REQUIRED INSPECTIONS, NOTICES, OR REPORTS AS REQUIRED BY LOCAL AUTHORITIES.
- 1.5 THE CONTRACTOR SHALL NOTIFY DIG-SAFE 811 PRIOR TO ANY EXCAVATION.
- 1.6 CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF THE PROJECT SITE, INCLUDING CONTROL OF ACCESS TO THE SITE DURING THE ENTIRE PERIOD OF CONSTRUCTION ACTIVITY ON SITE INCLUDING NIGHT AND WEEKENDS. ALL UNSAFE AREAS SUCH AS OPEN EXCAVATIONS AND EQUIPMENT WORK AREAS SHALL BE PROPERLY
- 1.7 ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL ENVIRONMENTAL RULES AND REGULATIONS, INCLUDING PROPER STOCKPILING OF NEW OR EXCAVATED MATERIALS AND PROPER SCREENING AND TESTING OF ALL
- 1.8 MANUFACTURER'S INSTRUCTIONS. INSTALLATION GUIDELINES. AND CHECKLISTS WILL BE FOLLOWED FOR ALL EQUIPMENT BEING INSTALLED. CONTRACTOR WILL PROVIDE ALL DELIVERY RECEIPTS, COMPLETED CHECKLISTS, AND WARRANTY PAPERWORK TO OWNER.
- 1.9 CONTRACTOR SHALL KEEP THE SITE CLEAR OF RUBBISH AND DEBRIS AND MAINTAIN A CLEAN SAFE WORKSITE. THE SITE WILL BE BROOM CLEAN AND ALL DEBRIS AND CONSTRUCTION TRASH WILL BE REMOVED FROM THE SITE PRIOR TO CONTRACTOR LEAVING THE SITE.
- 1.10 IF THE OWNER ENGAGES AN INDEPENDENT ENVIRONMENTAL CONSULTANT, THE CONTRACTOR SHALL WORK WITH THE CONSULTANT TO INSURE THE PROJECT COMPLIES WITH ALL ENVIRONMENTAL REQUIREMENTS.
- 1.11 THE CONTRACTOR SHALL VISIT THE SITE AND FIELD VERIFY THE EXISTING AND PROPOSED CONDITIONS PRIOR TO CONSTRUCTION, INCLUDING: LOCATION OF PROPERTY BOUNDARIES, EASEMENTS AND RIGHTS OF WAY; LOCATIONS OF STRUCTURES, BUILDINGS, DRIVEWAYS, OVERHEAD OBSTRUCTIONS; LOCATION AND SIZES OF EXISTING UG UTILITIES, PIPING, STRUCTURES AND TANKS; AND EXISTING AND PROPOSED CRITICAL ELEVATIONS AND SITE DRAINAGE
- 1.12 CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES.
- 1.13 FOLLOW ALL SAFETY PRECAUTIONS DUE TO SAFETY HAZARDS CREATED BY AIR TESTING. FAILURE OF TANKS AND PIPING MAY CAUSE PERSONAL INJURY AS WELL AS DESTROY EQUIPMENT. NEVER APPLY AIR PRESSURE TO ANY TANK CONTAINING MOTOR FUEL.
- 1.14 THE CONTRACTOR SHALL PROVIDE A REDLINE AS BUILT DRAWING INDICATING ACTUAL LOCATION OF ALL PIPING, CONDUITS, AND BURIED EQUIPMENT. THE CONTRACTOR SHALL TAKE AND PROVIDE DIGITAL PHOTOGRAPH RECORD OF ALL BURIED EQUIPMENT INCLUDING TANK TOPS, PIPING RUNS AND ELECTRICAL TRENCHES TO THE OWNER.

2. DEMOLITION & TANK OR PIPING REMOVAL.

- 2.1 CONTRACTOR WILL OBTAIN ANY TANK REMOVAL PERMITS AND FOLLOW ALL LOCAL PERMIT REQUIREMENTS REGARDING NOTICE, INSPECTIONS, TESTING, AND PROPER DISPOSAL.
- 2.2 CHECK GROUNDWATER LEVELS BEFORE ANY EXCAVATION AND PLAN ACCORDINGLY REGARDING REMOVAL OF OVERBURDEN AT TANK AREA. IF DEWATERING IS REQUIRED, COMPLY WITH ALL MUNICIPAL AND ENVIRONMENTAL REQUIREMENTS REGARDING PERMITTING AND PROPER DISPOSITION OF WATER.
- 2.3 ANY TANK TO BE REMOVED SHALL BE PROPERLY DRAINED, INERTED AND DISPOSED. COPIES OF ALL TANK REMOVAL AND DISPOSAL DOCUMENTATION SHALL BE PROVIDED TO THE OWNER.
- 2.4 ALL EXISTING PIPING SHALL BE REMOVED. NO PIPING SHALL BE ABANDONED WITHOUT OWNER APPROVAL AND THEN ONLY IN ACCORDANCE WITH ANY STATE OR LOCAL REQUIREMENTS AND OR AS DIRECTED BY THE
- 2.5 TANKS WILL BE ABANDONED IN PLACE ONLY IN SPECIAL CIRCUMSTANCES. INSURE THAT ALL REGULATORY AND PERMITTING REQUIREMENTS ARE MET FOR SPECIFIC TANK ABANDONEMENT APPROVALS.

3. EXCAVATION:

- 3.1 ALL EXCAVATIONS SHALL BE COMPLETED IN ACCORDANCE WITH OSHA REGULATIONS AND GOOD INDUSTRY PRACTICES. NO PERSON SHALL ENTER ANY EXCAVATION UNLESS PROPERLY SHORED, SLOPED OR BRACED.
- 3.2 THE PERIMETER OF ALL EXCAVATIONS SHALL BE PROPERLY MARKED.
- 3.3 THE CONTRACTOR WILL WORK WITH POR AND ENVIRONMENTAL CONSULTANT, IF ANY, REGARDING SCREENING AND PROPER STOCKPILING OF EXCAVATED MATERIAL. ALL MATERIALS EXCAVATED WILL BE PROPERLY
- 3.4 WHERE UNEXPECTED ROCK LEDGE OR UNCONTROLLABLE WATER CONDITION IS ENCOUNTERED, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO PROCEEDING.

4. BACKFILL:

- 4.1 TANK EXCAVATIONS WILL BE LINED WITH OWNER APPROVED GEOTEXTILE FILTER FABRIC TO REDUCE SOIL MIGRATION AND SETTLING.
- 4.2 ALL BACKFILL MATERIAL WILL BE IMPORTED CLEAN FILL MEETING SPECIFICATIONS OF THIS SECTION OR THE MANUFACTURER'S INSTALLATION GUIDELINES OR MATERIAL EXCAVATED FROM THE PROJECT SITE THAT IS SUITABLE FOR RE-USE. ALL BACKFILL WILL BE COMPACTED TO 90% OF OPTIMUM DENSITY BASED ON STANDARD PROCTOR COMPACTION TESTS. A MINIMUM OF ONE FOOT OF MANUFACTURER SPEC BACKFILL WILL BE INSTALLED AS TANK BED, OR AS OTHERWISE SPECIFIED BY OWNER OR MANUFACTURER'S INSTALLATION
- 4.3 STANDARD BED AND BACKFILL MATERIAL SHOULD BE A NATURALLY ROUNDED AGGREGATE, CLEAN AND FREE-FLOWING, WITH PARTICLE SIZES NOT LESS THAN 1/8" NOR MORE THAN 3/4" IN DIAMETER AND CONTAINING NO MORE THAN 5% VOLUME FINES PASSING THROUGH A #8 SIEVE. THIS IS COMMONLY KNOWN AS ASTM C-33 PEA GRAVEL BUT MAY HAVE OTHER DESIGNATIONS DÉPENDING UPON LOCAL CUSTOMS.
- 4.4 AN ACCEPTABLE ALTERNATIVE IS STONE OR GRAVEL CRUSHINGS WITH ANGULAR PARTICLE SIZE NOT LESS THAN 1/8" OR MORE THAN 1/2" IN DIAMETER, WASHED AND FREE-FLOWING AND CONTAINING NO MORE THAN 5% VOLUME FINES PASSING THROUGH A #8 SIEVE. THIS MATERIAL MUST MEET ASTM C-33 PARAGRAPH 9.1 REQUIREMENT LIMIT ON FINES CONTENT AND FOR SOUNDNESS AND QUALITY.
- 4.5 DRY GRAVEL DENSITY MUST BE A MINIMUM OF 95 POUNDS PER CUBIC FOOT.
- 4.6 CAUTION: IN FREEZING CONDITIONS, BACKFILL MUST BE DRY AND FREE OF ICE. DO NOT USE OTHER BACKFILL MATERIALS. DO NOT ALLOW BACKFILL MATERIAL TO INTERMIX WITH ANY EXCAVATED SOIL AT THE
- 4.7 SAND IS NOT AN ACCEPTABLE ALTERNATE BACKFILL MATERIAL FOR TANKS OR PIPING.
- 4.8 THE SAME BACKFILL MATERIAL WILL BE USED OVER THE TANKS AND PIPING TO BASE OF PAVING. DO NOT USE OTHER BACKFILL OVER THE TANKS REGARDLESS OF DEPTH OF BURIAL.

5. TANK INSTALLATION:

- 5.1 ALL TANKS SHALL BE UL APPROVED.
- 5.2 TANKS TO BE FILLED BY GRAVITY ONLY. THESE STORAGE TANKS ARE NOT DESIGNED FOR PRESSURE FILLING.
- 5.3 DO NOT ROLL TANK. USE ONLY MFGR APPROVED LIFTING POINTS AND PROCEDURES. STORE AND CHOCK TANK PER MFGR INSTALLATION GUIDELINES. IN FREEZING CONDITIONS, PROTECT COLLARS FROM WATER ACCUMULATION TO PREVENT DAMAGE
- 5.4 RETEST TANK PER MFGR INSTRUCTIONS PRIOR TO SETTING IN EXCAVATION TO CHECK FOR ANY SHIPPING OR HANDLING DAMAGE. USE PROPER DOUBLE WALL TANK TESTING PROCEDURES.
- 5.5 PROVIDE MINIMUM EXCAVATION CLEARANCES AND MINIMUM TANK BED MATERIAL. LINE EXCAVATION WITH FILTER FABRIC TO PREVENT MIGRATION BETWEEN NATIVE AND BACKFILL MATERIALS.
- 5.6 PROVIDE MINIMUM 36 INCH AND MAXIMUM 84 TANK BURIAL. IF DEEPER BURIAL REQUIRED, OBTAIN SPECIAL DESIGN APPROVAL FROM TANK MANUFACTURER. PROVIDE ANCHORING AS SPECIFIED. ALL TANKS TO BE INSTALLED IN AREA WHERE SEASONAL HIGH GROUNDWATER IS EXPECTED TO MEET OR EXCEED THE BOTTOM OF THE TANK EXCAVATION SHALL HAVE A BOUYANCY CALCULATION COMPLETED TO INSURE PROPER TANK ANCHORING IS BEING PROVIDED FOR THE SPECIFIC SITE AND TANK BURIAL.
- 5.7 BACKFILLING OF BOTTOM OF FIBERGLASS TANKS IS CRITICAL TO INSURE PROPER TANK SUPPORT AND STRUCTURAL INTEGRITY. CLOSELY FOLLOW ALL MFGR REQUIREMENTS FOR BACKFILL IN THE CRITICAL AREA UNDER THE TANK.
- 5.8 COMPLETE AND PROVIDE TO OWNER ALL MFGR INSTALLATION CHECKLISTS, INCLUDING VERTICAL DIAMETER DEFLECTION
- 5.9 IF TANKS OF DIFFERENT DIAMETERS ARE BEING INSTALLED, INSTALL THE TANKS SO THAT THE TOP OF THE TANKS ARE LEVEL, PARTICULARLY IF THE TANKS ARE BEING SYPHONED. COMPLY WITH MFGR RECOMMENDATIONS REGARDING SPACING BETWEEN TANKS OF DIFFERENT DIAMETERS.
- 5.10 BALLAST TANKS AS SOON AS PRACTICAL AFTER INSTALLATION, PARTICULARLY IF HIGH GROUNDWATER IS EXPECTED. IF BALLAST OTHER THAN MOTOR FUEL IS USED, PLAN FOR PROPER DISPOSITION OF BALLAST MATERIAL AFTER INSTALLATION IS COMPLETE AND PRIOR TO FILLING THE TANK WITH PRODUCT. DO NOT ADD BALLAST TO TANK UNTIL IT IS BACKFILLED AT LEAST TO THE TOP OF THE TANK.
- 5.11 TANK REPAIRS OR OTHER TANK UPGRADES SUCH AS SUMPS OR FITTINGS SHALL ONLY BE ACCOMPLISHED BY FACTORY TRAINED AND AUTHORIZED PERSONNEL AND WITH THE PRIOR AUTHORIZATION OF THE OWNER.

6. PIPING & FITTING INSTALLATION:

THE TANK INDEPENDENT OF THE MAT OR PAVING.

MEASUREMENTS AND ANY TANK TESTING RESULTS.

- 6.1 ALL PIPING SHALL MEET UL-971 AND APPLICABLE ASTM STANDARDS.
- 6.2 THE CONTRACTOR AND/OR HIS ON—SITE EMPLOYEES SHALL BE CERTIFIED BY THE PIPING MANUFACTURER AS AN APPROVED INSTALLER.
- 6.3 PIPING SYSTEMS SHALL PROVIDE FLEXIBILITY FOR MOVEMENT AT TANK, DISPENSER AND ALL TERMINATIONS. ADHERE TO PIPING MFGR SPECIFICATIONS FOR MINIMUM BEND RADIUS, MINIMUM BURIAL, MINIMUM CLEARANCES FROM EXCAVATION AND OTHER PIPING OR CONDUIT.
- 6.4 ALL PIPING SHALL BE INSTALLED WITH MINIMUM 1/8" PER FOOT SLOPE BACK TO THE TANK OR TO MONITORED SUMP.
- 6.5 THE CONTRACTOR SHALL EMPLOY ANY SPECIAL INSTALLATION TECHNIQUES REQUIRED DURING ADVERSE WEATHER CONDITIONS AS RECOMMENDED BY THE PIPING MANUFACTURER.
- 6.6 ALL METAL RISERS OR BURIED METAL COMPONENTS TO BE MIN SCHEDULE 40 AND COATED WITH CORROSION PROTECTION DESIGNED FOR THE APPLICATION.
- 6.7 ALL TANK TOP EQUIPMENT AND SUMPS SHALL BE INSTALLED SO AS TO PREVENT ANY TRANSMISSION OF TRAFFIC LOAD FROM THE TANK MAT THROUGH THE EQUIPMENT TO THE TANK. THE INSTALLED EQUIPMENT MUST BE FREE TO MOVE WITH
- 6.8 PRIOR TO BACKFILLING, CONDUCT PIPE TESTING AND PROVIDE TEST RESULTS TO OWNER AND, IF REQUIRED, TO LOCAL AUTHORITY. AFTER INSTALLATION, IF DESIGN CALLS FOR SUMP MONITORING OF PIPING INTERSTITIAL, LOOSEN SECONDARY TEST BOOTS TO ALLOW COMMUNICATION BETWEEN INTERSTITIAL AND SUMP.
- 6.9 INSTALL UG DETECTABLE TAPE FOR ALL PIPING RUNS SUCH AS HARRIS INDUSTRIES MODEL #DU-03 OR EQUIVALENT, SET SIX TO TWELVE INCHES BELOW SURFACE.
- 6.11 PIPE TRENCHES SHALL BE PROPERLY BARRICADED AND MARKED TO INSURE SAFETY. PROTECT INSTALLED PIPING FROM DAMAGE DUE TO OTHER WORK IN VICINITY OF PIPING SUCH AS INSTALLATION OF ELECTRICAL CONDUIT OR BUMPER

7. SUMP INSTALLATION:

- 7.1 ALL SUMPS WILL BE INSTALLED PER MFGR INSTALLATION GUIDELINES HYDROSTATICALLY TESTED.
- 7.2 SUMPS TO BE INSTALLED TO PREVENT SURFACE OR GROUNDWATER INTRUSION. ALL SURFACE MANHOLES TO BE MOUNDED TO SHED SURFACE WATER AWAY FROM THE COVER.

8. OTHER EQUIPMENT:

- 8.1 DISPENSERS AND OTHER EQUIPMENT TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL EQUIPMENT WILL ONLY BE STARTED UP BY FACTORY AUTHORIZED PERSONNEL.
- 8.2 ALL WARRANTY PAPERWORK SHALL BE FORWARDED TO THE OWNER.
- 8.3 DISPENSERS SHALL BE PROPERLY ANCHORED TO THE DISPENSING ISLAND OR MAT. DISPENSERS SHALL BE CALIBRATED

AND SEALED IN ACCORDANCE WITH LOCAL REQUIREMENTS PRIOR TO BEING PUT INTO SERVICE TO THE GENERAL PUBLIC.

- 8.4 ALL ELECTRICAL WORK WILL BE DONE IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODES AND MFGR RQMNTS THAT MAY BE MORE STRINGENT THAN THE CODES. PARTICULARLY REGARDING INTRINSICALLY SAFE EQUIPMENT ISOLATION AND MONITORING EQUIPMENT GROUNDING ROMNTS. DO NOT RUN LOW POWER, INTRINSICALLY SAFE, AND HIGH POWER WIRING THROUGH COMMON CONDUIT, CHASE, TROUGH OR PANEL. ALL INSTALLED EQUIPMENT SHALL MEET ANY APPLICABLE HAZARDOUS AREA ROMNTS. MONITORING EQUIPMENT WILL BE INSTALLED IN ACCORDANCE WITH MFGR'S SPEC'S AND ONLY BY FACTORY AUTHORIZED PERSONNEL. ALL SENSORS WILL BE TESTED FOR PROPER FUNCTION.
- 8.5 VERIFY WITH OWNER AS TO MINIMUM NUMBER OF CONDUIT TO BE PROVIDED TO EACH DISPENSER AND STP SUMP. AT A MINIMUM PROVIDE - (1) 1" POWER, (1) 3/4" VEEDER ROOT, (1) 1/2" INTERCOM AT EA DISPENSER AND (1) 3/4" POWER, (1) 1/2" SENSOR AT EA STP SUMP.

- 9.1 ALL EQUIPMENT WILL BE TESTED PRIOR TO BEING PUT INTO OPERATION TO INSURE THAT IT IS OPERATING PROPERLY AND THAT THERE ARE NO LEAKS. DOCUMENTATION OF ALL TESTING WILL BE PROVIDED TO THE OWNER AND AS REQUIRED TO THE REGULATORY AUTHORITIES. ALL OVERFILL EQUIPMENT SHALL BE CHECKED TO INSURE THAT PROPER TANK FILL LIMITS WILL BE MAINTAINED.
- 9.2 THE CONTRACTOR SHALL PROVIDE A MINIMUM OF THREE DAYS NOTICE TO THE OWNER OF ALL TESTING AND ALLOW THE OWNER'S REPRESENTATIVE TO WITNESS ANY TESTING. THE CONTRACTOR WILL INSURE THAT ANY TEST REQUIRED TO BE WITNESSED BY LOCAL AUTHORITY IS COORDINATED AND COMPLIED WITH.

10. PAVING:

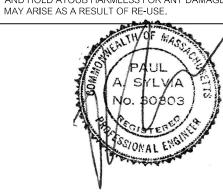
GUIDELINES.

- 10.1 ALL PAVING WILL BE PER THE OWNER'S SITE SPECIFIC SPECIFICATIONS, AS MAY SUPERCEDE THE FOLLOWING MINIMUM
- 10.2 EXISTING PAVEMENT SHALL BE SAWCUT AT THE EXTENT OF DISTURBANCE UNLESS OTHERWISE SPECIFIED BY OR CONTRACT DOCUMENTATION. NEW ASPHALT SHALL BE 1.5" WEARING COURSE OVER 2.5" BINDER, OVER 6" COMPACTED GRANULAR BASE, OVER EXISTING SUBGRADE COMPACTED TO 95% PROCTOR; OR AS SPECIFIED BY BID DOCUMENTS. ALL NEW PAVEMENT WILL BE INSTALLED TO PROVIDE SMOOTH MATCH TO EXISTING PAVEMENT AND PROPER STORMWATER
- 10.3 CONCRETE PAD OVER TANKS WILL EXTEND A MINIMUM OF TWO FT BEYOND THE TANK SHADOW IN ALL DIRECTIONS. MINIMUM TANK PAD SPECIFICATION IS EIGHT INCH THICK MAT OF 4,000 PSI AIR-ENTRAINED FIBERMESH CONCRETE WITH WELDED WIRE FABRIC #6X6X6 AND #4 DEFORMED REBAR AT SLAB JOINTS AND AROUND MANHOLES AND PAD OPENINGS. MINIMUM DISPENSER MAT SPECIFICATION IS SIX INCH THICK MAT OF 4,000 PSI AIR-ENTRAINED FIBERMESH CONCRETE WITH WELDED WIRE FABRIC #6X6X6 A4D #5 DEFORMED REBAR AT SLAB JOINTS.
- 10.4 CONCRETE TO BE SEALED USING "STARSEAL PS CLEAR" PENETRATING SEALANT AS MANUFACTURED BY VEXCON CHEMICALS, INC., PHILADELPHIA PA (888-839-2261) VEXCON.COM. ADHERE TO MANUFACTURER'S INSTALLATION INSTRUCTIONS - "APPLICATION: FRESHLY PLACED CONCRETE".

	F	EQUIPMENT SCHEDULE	
ITEM	MFGR	MODEL NUMBER	COMMENTS
TANKS		DWT - 10' 15K DW FG SINGLE	WET INTERSTITIAL
		DWT - 10' 15K DW FG SPLIT 9/6	{
		,	
TANK SUMP NEW TANK	TANK MFGR	SW FG TANK SUMP	BONDED TO MFGRS TANK COLLAR
SUBMERSIBLE PUMP	RED JACKET	RJ2	2 HP FOR GASOLINE, 1.5 HP FOR DIESEL
LINE LEAK DETECTOR	RED JACKET	FXV MECHANICAL	
ENTRY FITTINGS	FRANKLIN UPP	303-075	FUSION SEAL 2" DW
FILL SPILL CONTAINMENT	PEI	705-545-002-CI-GKT	DEFENDER, 5 GALLON, SW, NO DRAIN, CAST IRON COVER W/GASKET
SWIVEL FILL ADAPTER	OPW	61SA-1020-EVR	
FILL CAP	OPW	634TT-7085-EVR	
DROP TUBE	UNIVERSAL	723–4015	STRAIGHT DROP TUBE
OVERFILL VALVE	OPW PEI	71SO 705-545-002-CI-GKT	DROP TUBE FLAPPER VALVE
VAPOR SPILL CONTAINMENT			DEFENDER, 5 GALLON, SW, NO DRAIN, CAST IRON COVER W/GASKET
SWIVEL VAPOR ADAPTER	OPW	61VSA-1020-EVR	
EXTRACTOR CACCUME	00111	077 4470	
EXTRACTOR - GASOLINE	OPW	233-4430	
VAPOR CAP - STAGE ONE	OPW	1711T-7085-EVR	
EXTRACTOR - DIESEL	OPW	233-4420	
PRODUCT PIPING	FRANKLIN UPP	2" DW SMARTFLEX	HPDE PIPE UL 97/2" DW FLEX PIPING
VENT PIPING	FRANKLIN UPP	2" & 3" SW F6 SMARTFLEX	HPDE PIPE UL 97/2" & 3" SW VENT/VAPOR
VENT CAP GASOLINE	HUSKY	05885	3"
VENT CAP DIESEL	OPW	23-0033	2"
DISPENSERS	TBD		3 +1 PRODUCT DISPENSER
DISPENSER SUMPS	FRANKLIN UPP	DS 3617	
STP SUMP ROAD COVER	FLEX-ING	14URT-4210CL	42" COMPOSITE MANHOLE, RING, 10" SKIRT WITH CAMLOCKS
STP SUMP ROAD COVER			
CAP AND RING KIT	MORRISON	305XPA-1200AK	
MONITORING CONSOLE	VEEDER ROOT		CONNECT NEW SENSORS TO EXISTING TO REMAIN
TANK VOLUME PROBE	VEEDER ROOT	846390	CONNECT NEW SENSORS TO EXISTING TO REMAIN
GAS FLOAT KIT	VEEDER ROOT	886100-000	
DSL FLOAT KIT	VEEDER ROOT	886400-001	
LINE LEAK DETECTOR	RED JACKET	FXV MECHANICAL	
STP/MULTIPORT SUMP SENSOR	VEEDER ROOT	794380–208	CET AT LOWEST DOINT IN CTD SUND NEAD ENTRY FITTINGS
			I SEL AL LUWEST PUINT IN STP SUMP NEAR ENTRY FILLINGS
		701000 200	SET AT LOWEST POINT IN STP SUMP NEAR ENTRY FITTINGS
TANK INTERSTITIAL SENSOR	VEEDER ROOT	794380–303	DUAL FLOAT WET INTERSTITIAL
TANK INTERSTITIAL SENSOR			
TANK INTERSTITIAL SENSOR HIGH LEVEL ALARM/STROBE			
	VEEDER ROOT	794380-303	DUAL FLOAT WET INTERSTITIAL
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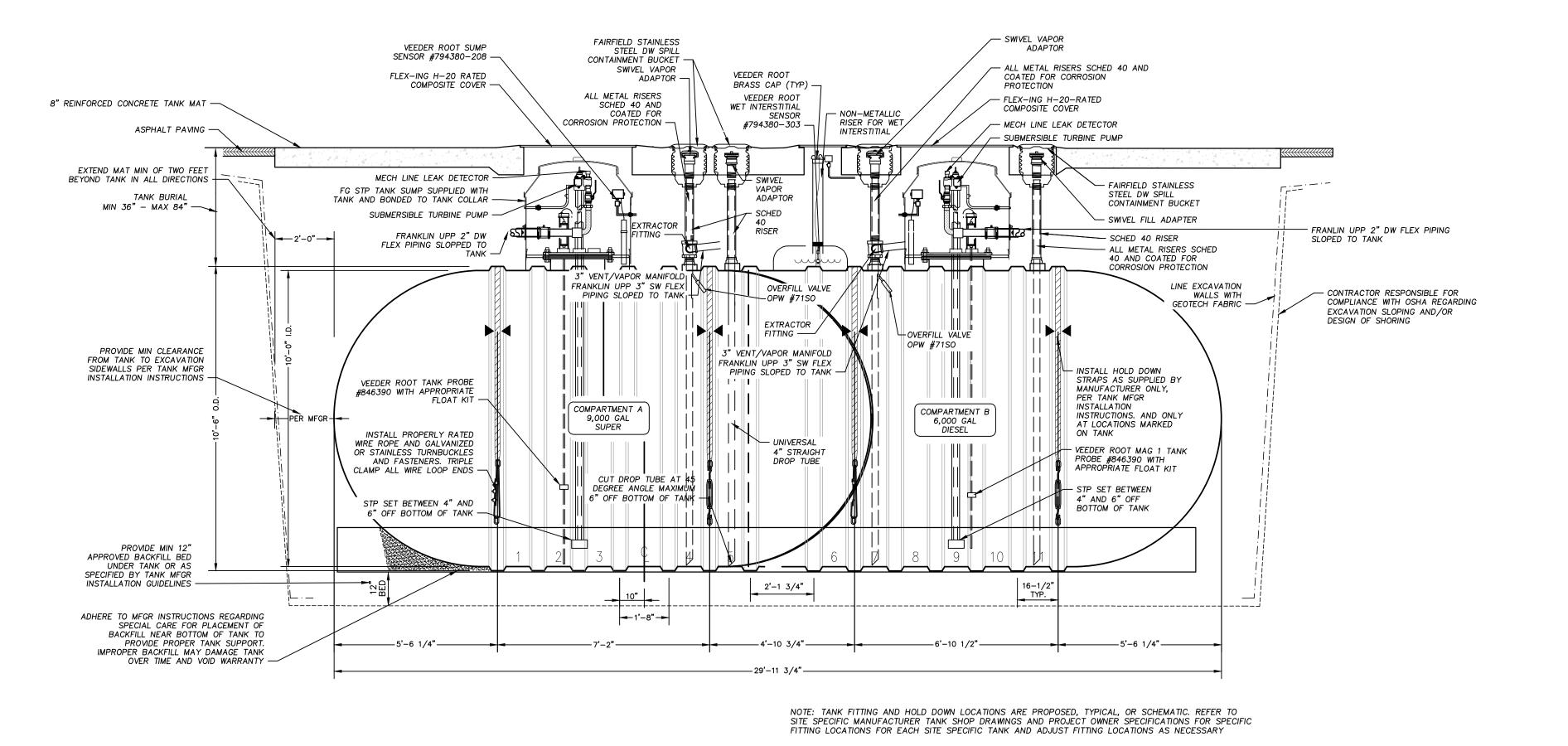
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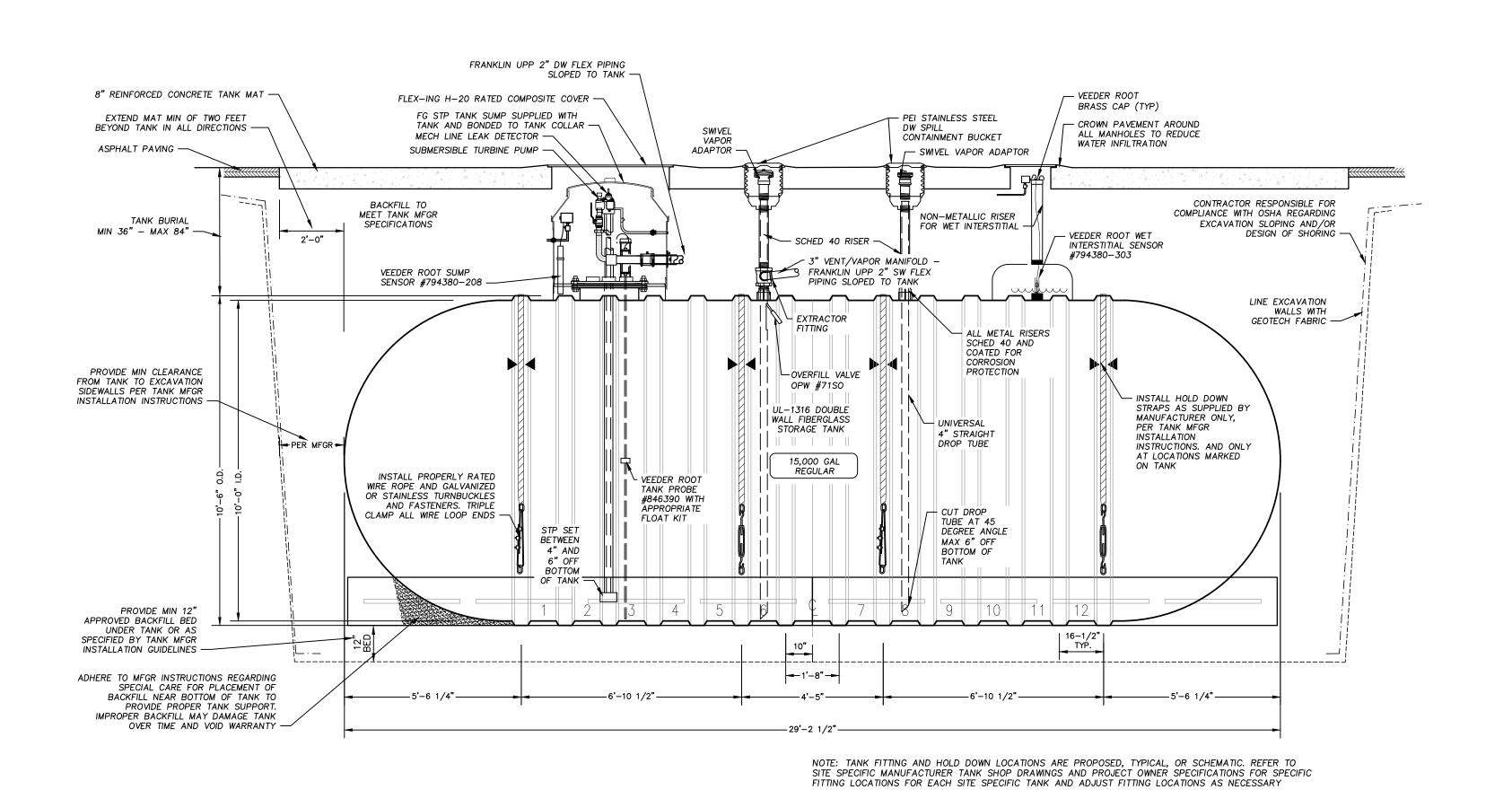
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NEW TANK ELEVATION

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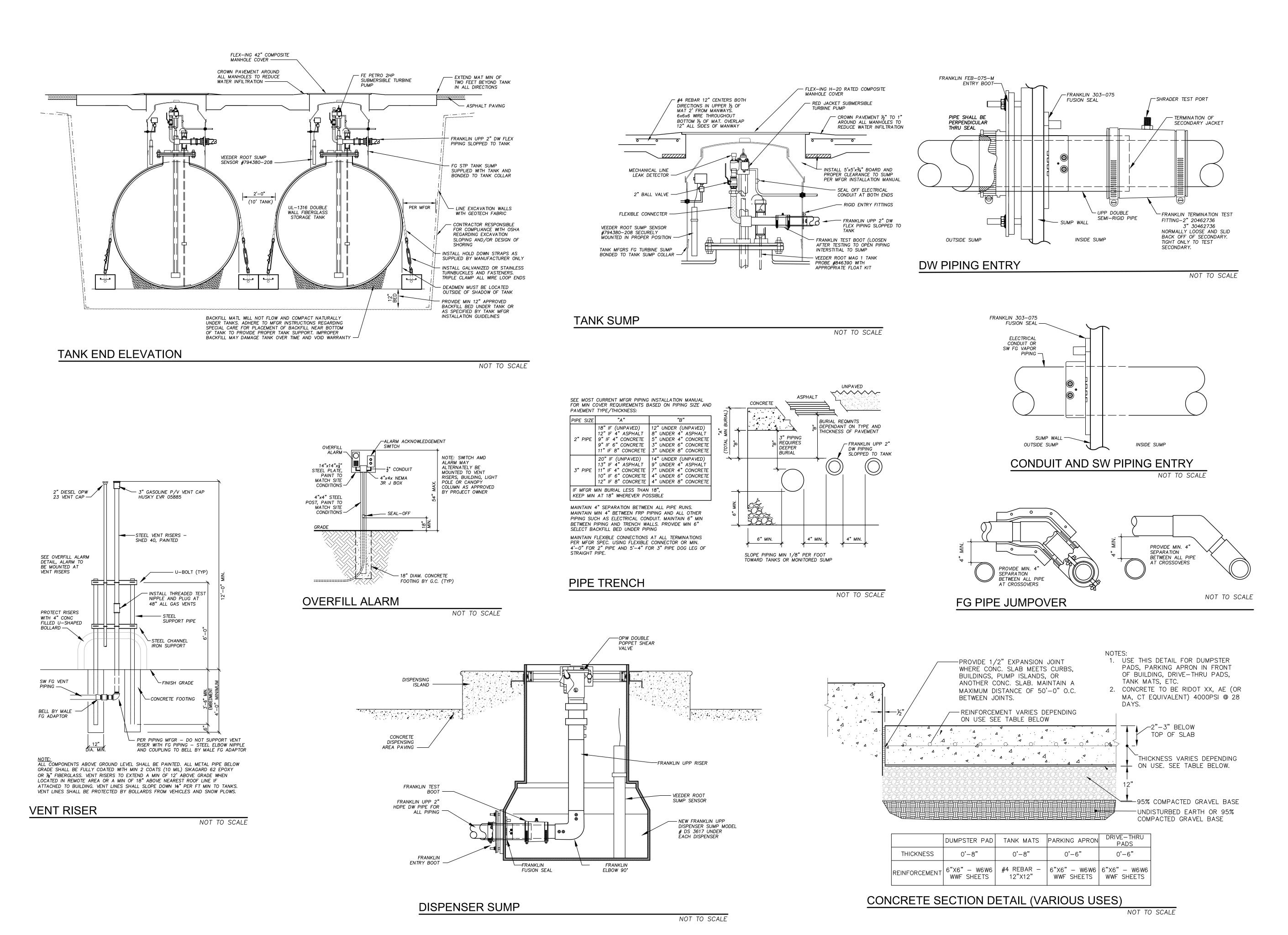
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SCALE: AS NOTED

DRAWN BY: RCD

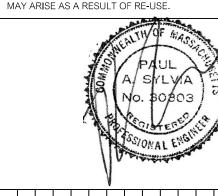
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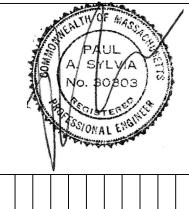
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