

## **BIGGS & MATHEWS ENVIRONMENTAL**

*Consulting Engineers ♦ Hydrogeologists*

Mansfield ♦ Wichita Falls

January 21, 2020

Arten J. Avakian  
MC 124  
Municipal Solid Waste Permits Section  
Texas Commission on Environmental Quality  
12100 Park 35 Circle, Bldg. F  
Austin, Texas 78753

Re: Attachment 5 and Attachment 14 Permit Modification - Notice of Deficiency  
McCommas Bluff Landfill, TCEQ Permit No. 62  
Dallas County, Texas  
Tracking No. 24812634; RN100752146/CN600331730

Dear Mr. Avakian:

On behalf of our client, the City of Dallas, please find attached this response to your comment letter addressed to Mr. Dennis Ware, dated December 9, 2019. The attachments with this document completely replace the attachments from the original submittal. Our responses to your comments are presented below in the order received.

1. Provide a clean replacement page for the revisions on page 5-4 of the GCRMP.

***RESPONSE: A clean replacement page for Page 5-4 has been added.***

2. Revise Figure 5B.1 in the GCRMP to address the following items:
  - a. Clarify whether wells MW-3R and MW-11R are already installed and revise the symbol on the drawing accordingly.
  - b. Clarify whether well MW-22 has been installed and revise the symbol on the drawing accordingly.
  - c. Confirm the location of the permit boundary on the east side of the landfill and revise the line on the drawing accordingly.

***RESPONSE: a. Monitoring wells 3-R and 11-R have been installed and the symbols on Figure 5B.1 have been revised to reflect that.***

***b. Monitoring well MW-22 has not yet been installed and the symbol on Figure 5B.1 has been revised to reflect that.***

***c. The line designations in the legend on Figure 5B.1 have been revised to properly reflect the permit boundary, the waste footprint, the property line and the SUP line.***

3. Identify the “5 remediation wells,” “6 additional remediation wells,” and “11 existing geoprobes” referenced in the newly added third paragraph in Section 6.0 of the LGMP.

**RESPONSE:** *Additional language has been added to the text to clarify/identify which wells and geoprobes are being referenced.*

4. Indicate the boring diameter on the second passive vent detail in new Drawing 4.

**RESPONSE:** *The drawing has been updated to show that the passive vents will have an 8-inch boring diameter.*

5. Provide a schedule for landfill gas monitoring in passive vents and groundwater monitor wells in the area where landfill gas remediation is ongoing.

**RESPONSE:** *Due to the fact that passive vents will be open to the atmosphere and under a slight vacuum from the wind turbine, it is not expected that useful methane readings will be available from them. As such, no monitoring of the passive vents is planned.*

*For the monitoring wells, because methane readings above the regulatory limit have not been detected in MW-5 for over 3 years and in MW-20 for over 21 months, we are requesting that these monitoring wells be removed from the monitoring program. MW-13 will continue to be read monthly until achieving six consecutive months with methane below the regulatory limit, and then will move to quarterly monitoring. MW-4 and MW-12 will continue to be read weekly until achieving four consecutive methane readings below the regulatory limit. They will then move to monthly monitoring until they have been below the limit for six consecutive months, and then will move to quarterly monitoring. Quarterly monitoring will continue on all affected wells until approval is received from the TCEQ to cease monitoring.*

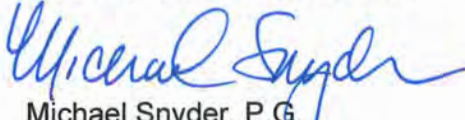
*It is expected that it will take up to 12 months for the installation of the passive vents to reach its full effect on LFG levels in the soil. Because of this, monitoring and evaluation is expected to continue for up to 12 months after the installation of the passive vents is completed. If elevated methane levels are still being detected 12 months after the installation of the additional passive vents, then the City will contact the TCEQ to discuss potential additional remediation measures.*

Arten J. Avakian  
January 21, 2020  
Page 3

If you have any questions or comments regarding this submittal, or if you need additional information, please do not hesitate to contact us.

Sincerely,

BIGGS & MATHEWS ENVIRONMENTAL  
TBPE No. F-256 ♦ TBPG No. 50222



Michael Snyder, P.G.  
Principal Hydrogeologist



J. Heath Parker, P.E.  
Principal Engineer

Attachment 1: Permit Modification Application Form  
Attachment 2: Land Ownership List/Map  
Attachment 3: Permit Replacement Pages (Redline/Strikeout Format)  
Attachment 4: Permit Replacement Pages

cc: TCEQ Region 4  
Richard Akin, City of Dallas

**ATTACHMENT 1**

**PERMIT MODIFICATION APPLICATION FORM**

**Facility Name:** McCommas Bluff Landfill  
**Permittee/Registrant Name:** City of Dallas  
**MSW Authorization #:** 62  
**Initial Submittal Date:** 11/21/2019  
**Revision Date:** 1/21/2020



## Texas Commission on Environmental Quality

### Permit/Registration Modification and Temporary Authorization Application Form for an MSW Facility

#### 1. Reason for Submittal

☐ Initial Submittal ☒ Notice of Deficiency (NOD) Response

#### 2. Authorization Type

☒ Permit ☐ Registration

#### 3. Application Type

☒ Modification with Public Notice ☐ Modification without Public Notice  
☐ Temporary Authorization (TA) ☐ Modification for Name Change/Transfer

#### 4. Application Fees

☐ Pay by Check ☒ Online Payment

If paid online, e-Pay Confirmation Number: 582EA000366088

#### 5. Application URL

Is the application submitted for a permit/registration modification with public notice?

☒ Yes ☐ No

If the answer is "Yes", enter the URL address of a publicly accessible internet web site where the application and all revisions to that application will be posted in the space provided: <https://dallascityhall.com/departments/sanitation>

#### 6. Confidential Documents

Does the application contain confidential documents?

☐ Yes ☒ No

If "Yes", cross-reference the confidential documents throughout the application and submit as a separate attachment in a binder clearly marked "CONFIDENTIAL."

## 7. General Facility Information

Facility Name: McCommas Bluff Landfill  
MSW Authorization No.: 62  
Regulated Entity Reference No.: RN100752146  
Physical or Street Address (if available): 5100 Youngblood Road  
City: Dallas County: Dallas State: TX Zip Code: 75241  
(Area code) Telephone Number: 214-671-0230  
Latitude: 32°40'59.5596" N Longitude: -96°43'29.1324" W

## 8. Facility Type(s)

☒ Type I ☐ Type IV ☐ Type V  
☐ Type I AE ☐ Type IV AE ☐ Type VI

## 9. Description of the Revisions to the Facility

Provide a brief description of all revisions to the permit/registration conditions and supporting documents referred by the permit/registration, and a reference to the specific provisions under which the modification/temporary authorization application is being made. Also, provide an explanation of why the modification/temporary authorization is requested:

The purpose of this permit modification is to modify two attachments in the McCommas Bluff Landfill's Site Development Plan, Attachment 5 - Groundwater Characterization Report and Groundwater Monitoring Plan and Attachment 14 - Landfill Gas Management Plan.

Attachment 5 is being updated to address the relocation of three groundwater monitoring wells due to a previous landfill modification to the waste cell boundaries. This update relocates the point of compliance out of the permitted waste footprint. Attachment 14 is being updated to incorporate Landfill Gas (LFG) extraction wells and passive vents installed for the purpose of mitigating LFG migration into nearby groundwater monitoring wells.

This permit modification is being submitted under §305.70(k)(3) and §305.70(k)(4).

## 10. Facility Contact Information

**Site Operator (Permittee/Registrant) Name:** City of Dallas

Customer Reference No. (if issued)\*: CN 600331730

Mailing Address: 3112 Canton Street

City: Dallas

County: Dallas

State: TX

Zip Code: 75226

(Area Code) Telephone Number: 214-671-0230

E-mail Address: richard.akin@dallascityhall.com

TX Secretary of State (SOS) Filing Number:

\*If the Site Operator (Permittee/Registrant) does not have this number, complete a TCEQ Core Data Form (TCEQ-10400) and submit it with this application. List the Site Operator (Permittee/Registrant) as the Customer.

**Operator Name<sup>1</sup>:** Same as Site Operator (Permittee/Registrant)

Customer Reference No. (if issued)\*: CN

Mailing Address:

City:

County:

State:

Zip Code:

(Area Code) Telephone Number:

E-mail Address:

Charter Number:

<sup>1</sup>If the Operator is the same as Site Operator/Permittee type "Same as "Site Operator (Permittee/Registrant)".

\*If the Operator does not have this number, complete a TCEQ Core Data Form (TCEQ-10400) and submit it with this application. List the Operator as the customer.

**Consultant Name (if applicable):** Biggs and Mathews Environmental

Texas Board of Professional Engineers Firm Registration Number: F-256

Mailing Address: 1700 Robert Road, Suite 100

City: Mansfield

County: Tarrant

State: TX

Zip Code: 76063

(Area Code) Telephone Number: 817-563-1144

E-Mail Address: hparker@biggsandmathews.com

**Agent in Service Name (required only for out-of-state):**

Mailing Address:

City:

County:

State:

Zip Code:

(Area Code) Telephone Number:

E-Mail Address:

### 11. Ownership Status of the Facility

Is this a modification that changes the legal description, the property owner, or the Site Operator (Permittee/Registrant)?

☐ Yes ☒ No

If the answer is "No", skip this section.

Does the Site Operator (Permittee/Registrant) own all the facility units and all the facility property?

☐ Yes ☐ No

If "No", provide the information requested below for any additional ownership.

**Owner Name:**

Street or P.O. Box:

City: County: State: Zip Code:

(Area Code) Telephone Number:

Email Address (optional):

Charter Number:

## Signature Page

I, Joey Zapata, Assistant City Manager,  
(Site Operator (Permittee/Registrant)'s Authorized Signatory) (Title)

certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: [Signature] Date: 01-16-2020

TO BE COMPLETED BY THE OPERATOR IF THE APPLICATION IS SIGNED BY AN AUTHORIZED REPRESENTATIVE FOR THE OPERATOR

I, \_\_\_\_\_, hereby designate \_\_\_\_\_  
(Print or Type Operator Name) (Print or Type Representative Name)

as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

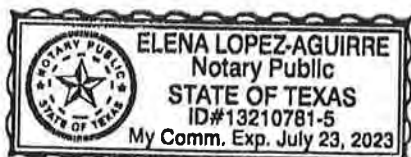
Printed or Typed Name of Operator or Principal Executive Officer

Signature

SUBSCRIBED AND SWORN to before me by the said Joey Zapata  
On this 16th day of January, 2020  
My commission expires on the 23rd day of July, 2020  
Elena Lopez-Aguirre

Notary Public in and for

Dallas County, Texas  
(Note: Application Must Bear Signature & Seal of Notary Public)



## Permit/Registration Modification with Public Notice

(See Instructions for P.E. seal requirements.)

### Required Attachments

### Attachment No.

Land Ownership Map

2

Land Ownership List

2

Marked (Redline/Strikeout) Pages

3

Unmarked Revised Pages

4

### Additional Attachments as Applicable- Select all those apply and add as necessary

- ☐ Signatory Authority
- ☐ Fee Payment Receipt
- ☐ Confidential Documents

**ATTACHMENT 2**  
**LAND OWNERSHIP LIST/MAP**

**McCommas Landfill  
Adjacent Property Owners  
Dallas Central Appraisal District, November 19, 2019**

1	QUALITY AUTO RECYCLERS LLC 1001 W PLEASANT RUN RD DESOTO TX 75115-2801	13	JOSE H VALDEZ & MARIA DELCARMEN VALDEZ 3922 SHINDOLL ST DALLAS TX 75216-4027
2	DP RESOURCES LLC 9727 STONE RIDGE CIRCLE DALLAS TX 75231	14	MARTIN RAMIRO AVILA 3104 POINT EAST DR MESQUITE TX 75150-2638
3	BROWN FAMILY LEWISVILLE RR FAMILY 1ST LP 5610 HARBOR TOWN DR DALLAS TX 75287-7413	15	440 EQUIPMENT LLC 5111 GREENVILLE AVE #601655 DALLAS TX 75360-0680
4	LLOYD E MILLER 10305 S CENTRAL EXPY DALLAS TX 75241-7316	16	COUNTY OF DALLAS 411 ELM ST DALLAS TX 75202-3301
5	JACK & LOIS APPERSON 1113 GREENBRIAR DR GARLAND TX 75043-5321	17	NICKS BIG TRUCK SALES 417 SUNFLOWER ST RED OAK TX 75154-4221
6	BRUCE & GAY FRAZER 2929 WESTMINSTER AVE DALLAS TX 75205-1508	18	COMET AUTO SALVAGE INC PO BOX 711 HUTCHINS TX 75141-0711
7	ONCOR ELECTRIC DELIVERY COMPANY PO BOX 139100 DALLAS TX 75313-9100	19	ENVIRONMENTAL INVESTMENTS LP 3048 HIGH RIDGE DR GRAPEVINE TX 76051-6807
8	METROPOLITAN SAND & GRAVEL CO LLC 10 MARYVIEW LN SAINT LOUIS MO 63124-1247	20	CASA FLORA INC PO BOX 41140 DALLAS TX 75241-0140
9	ELISEO J & AMAPOLA MARTINEZ 1201 SHADY GROVE IRVING TX 75060-6219	21	ANGELA ONEAL ET AL 9734 SOPHORA CIR DALLAS TX 75249-1422
10	PRESTIGE GRAM VENTURE LLC 7045 PORTOBELLO DR PLANO TX 75024-7570	22	SOUTHERN PACIFIC TRANS CO 1400 DOUGLAS ST STOP 1640 OMAHA NE 68179-1001
11	GERALDINE G CANGELOSE 804 KELLI CIR SULPHUR SPRINGS TX 75482-5078	23	UTSI FINANCE INC 12755 E 9 MILE RD WARREN MI 48089-2621
12	MARGARITO HERNANDEZ LOPEZ 2758 GLADSTONE DR DALLAS TX 75211-5205	24	SOUTHWEST PERENNIALS INC P O BOX 170867 DALLAS TX 75217-0867

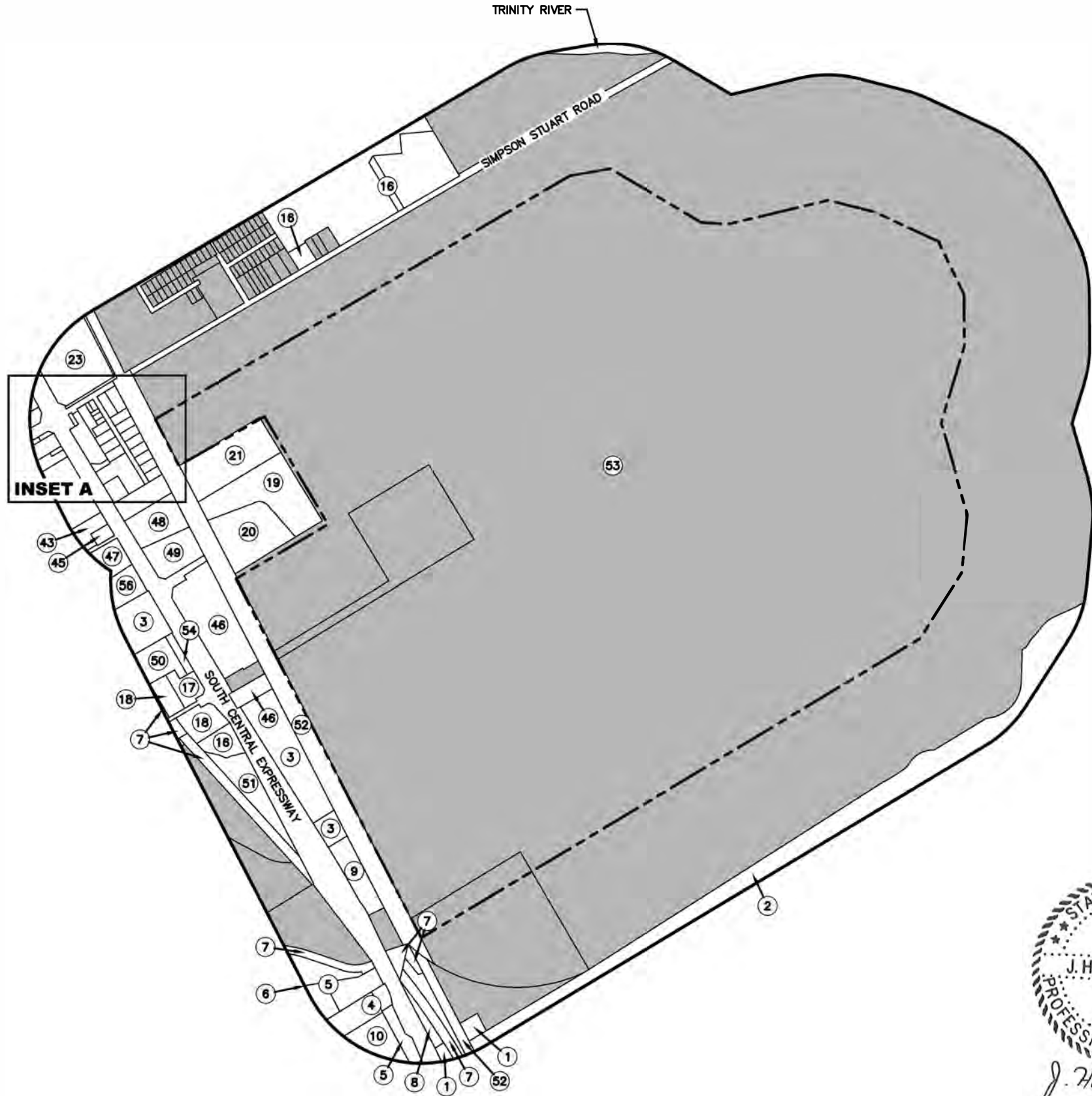
**McCommas Landfill  
Adjacent Property Owners  
Dallas Central Appraisal District, November 19, 2019**

25	CALVIN H SHAHAN 1600 NOKOMIS RD LANCASTER TX 75146-5547	37	RANDALL RHODES 462 LOMA LINDA PALMER TX 75152-8149
26	GERALDINE GENEVA 804 KELLI CIR SULPHUR SPRINGS TX 75482-5078	38	MULAT AHMED MUHAMED 2513 REDBROOK DR GARLAND TX 75040-3740
27	SONIA MARILU GARCIA MELENDEZ 9919 BERMUDA DR DALLAS, TX 75241-7342	39	GAYTAN PROPERTIES LTD 801 PELLEGRINO CT LAREDO TX 78045-8216
28	U S REALTY HOLDINGS LTD 2415 W NORTHWEST HWY STE 105 DALLAS TX 75220-4446	40	RUIBAL FARMS LP 601 S PEARL EXPWY DALLAS TX 75201-6013
29	OMAR ACEITUNOFUENTES 9319 BERMUNDA RD DALLAS TX 75241	41	LEONARDO ANDRADE PO BOX 571 HUTCHINS TX 75141-0571
30	HUFFHINES PROPANE LLC PO BOX 709 HUTCHINS TX 75141-0709	42	CAMILO RODEA 9430 BERMUDA RD DALLAS TX 75241-7338
31	ANASTACIO SAMPAYO & SONIA SANCHEZ 3006 RUIDODO AVE DALLAS TX 75228	43	ADALBERTO YANEZ FLORES 9433 S CENTRAL EXPY DALLAS TX 75241-7325
32	MARY LOU COULSTON LF EST 9325 BERMUDA RD DALLAS TX 75241-7342	44	METROPOLITAN SERVICES LLC 2717 WICKHAM CT PLANO TX 75093
33	JACOBO HERNANDEZ & MARIA DEL ROSARIO 9331 BERMUDA RD DALLAS TX 75241-7342	45	LU ROS MACHINE INC. 9449 S CENTRAL EXPY DALLAS TX 75241-7325
34	CAR REY INC 9303 CORIANDER PL DALLAS TX 75217-8656	46	DESEV INVESTMENT GROUP LLC 310 OXFORD DR RICHARDSON TX 75080-5411
35	GENARO VINIEGRA 9339 BERMUDA RD DALLAS TX 75241-7342	47	ALMIRA INDUSTRIAL & TRADING CORP PO BOX 143343 IRVING TX 75014-3343
36	HELIODORO VINIEGRA & MARIA VINIEGRA 9340 BERMUDA RD DALLAS TX 75241-7337	48	GACHMAN METAL & RECYCLING INC. PO BOX 308 FORT WORTH TX 76101-0308

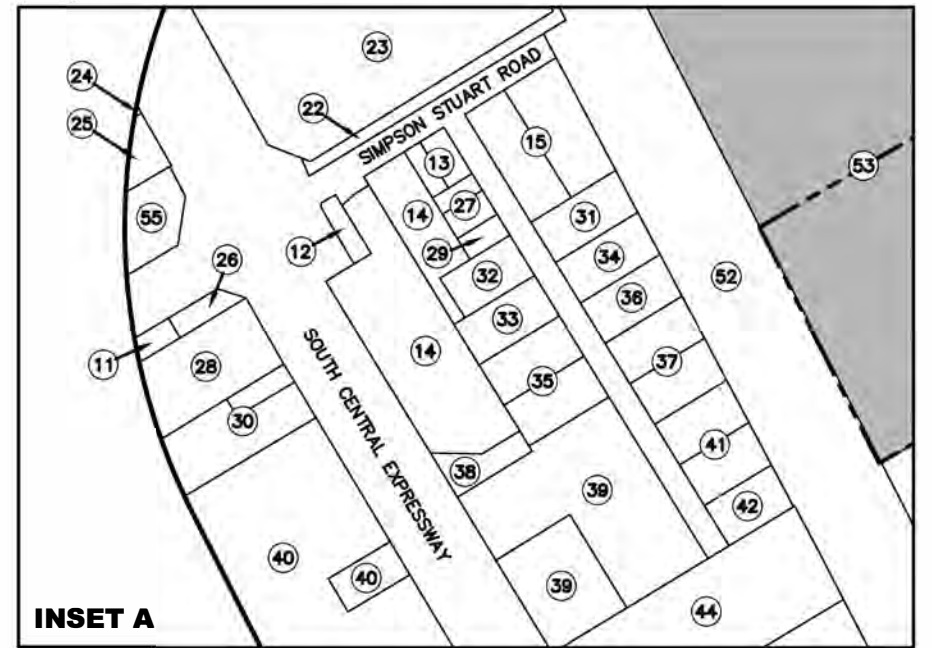
**McCommas Landfill  
Adjacent Property Owners  
Dallas Central Appraisal District, November 19, 2019**

49	US DELIVERY LLC 302 BROOKWOOD DR RICHARDSON TX 75080-4730
50	THE NELAN COMPANY PO BOX 180101 DALLAS TX 75218-0101
51	IRENE VAZQUEZ 9915 S CENTRAL EXPY DALLAS TX 75241-7320
52	UNION PACIFIC RR CO 1400 DOUGLAS ST STOP 1640 OMAHA NE 68179-1001
53	CITY OF DALLAS 1500 MARILLA ST DALLAS TX 75201
54	ASTEROID AUTO SALVAGE INC. 10701 CF HAWN FWY DALLAS TX 75217-8049
55	WHITE ANDRE 9255 S. CENTRAL EXPY DALLAS TX 75241-7512
56	CCR EQUITY HOLDINGS ONE LLC 906 W MCDERMOTT DRIVE STE 116-321 ALLEN TX 75013-6510

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- LEGEND**
- PERMIT BOUNDARY
  - ① LAND OWNERSHIP IDENTIFICATION
  - LAND OWNED BY THE CITY OF DALLAS
  - 1/4 MILE RADIUS



STATE OF TEXAS  
J. HEATH PARKER  
94764  
LICENSED  
PROFESSIONAL ENGINEER  
J. Heath Parker  
11/21/2020

FOR PERMITTING PURPOSES ONLY

REVISIONS							TBPE FIRM NO. F-256		TBPG FIRM NO. 50222	
							DSN. JHP	DATE : 11/19	DRAWING 1	
							DWN. SRC	SCALE : GRAPHIC		
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY	CHK. JHP	DWG : QuarterMileOwnership.DWG		

**PROPERTY OWNERS  
WITHIN 1/4 MILE**

**CITY OF DALLAS  
McCOMMAS BLUFF LANDFILL**

**BIGGS & MATHEWS**  
ENVIRONMENTAL  
CONSULTING ENGINEERS  
MANSFIELD • WICHITA FALLS  
817-563-1144

**ATTACHMENT 3**

**PERMIT REPLACEMENT PAGES  
(REDLINE/STRIKEOUT FORMAT)**

# **SITE DEVELOPMENT PLAN**

## **ATTACHMENT 5**

**MCCOMMAS BLUFF LANDFILL  
DALLAS COUNTY, TEXAS  
TCEQ PERMIT NO. MSW 62**

**PERMIT MODIFICATION**

**ATTACHMENT 5  
GROUNDWATER CHARACTERIZATION REPORT AND  
GROUNDWATER MONITORING PLAN**

Prepared for

**City of Dallas**

February 2009  
Revised June 2009  
Revised June 2014

Revised January 2020



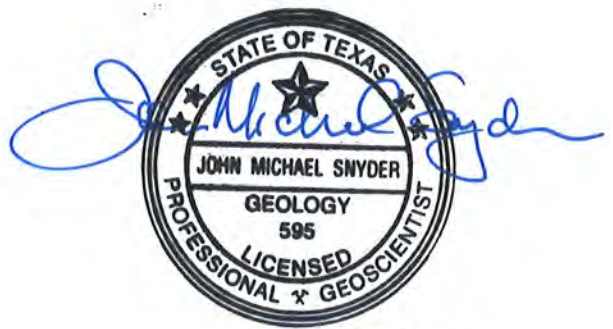
Prepared by

**BIGGS & MATHEWS ENVIRONMENTAL**

1700 Robert Road, Suite 100 ♦ Mansfield, Texas 76063 ♦ 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS  
FIRM REGISTRATION NO. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS  
FIRM REGISTRATION NO. 50222



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### APPENDIX 5A – SITE GEOLOGIC AND HYDROGEOLOGIC INFORMATION

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## 2 GROUNDWATER MONITORING SYSTEM

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### 2.1 Monitoring Well Locations

A revised monitoring system is herein proposed and shown on Figure 5B.1 that meets the spacing requirements of Subchapter J. Spacing between all wells in the proposed system is less than 600 feet.

The existing groundwater monitoring system monitors the Alluvium overlying the Austin Chalk. The existing approved system consists of 16 wells (3 upgradient and 13 downgradient wells) that are currently installed. The remaining wells in the approved system are to be phased in as cell development progresses in the northeast part of the site. The location of the approved monitoring plan is shown on Figure 5B.3.

The system will ultimately consist of 29 monitoring wells. MW-1, MW-2, and MW-10 are existing upgradient wells. MW-3R, MW-4, MW-5, MW-6, MW-7R, MW-11R, MW-12, MW-13, MW-14R, MW-15, MW-16, MW-17, MW-18, MW-19, MW-20, and MW-21 are currently installed. ~~MW-3R and MW-11R (which will replace existing MW-3 and MW-11) will be installed following approval of this modification.~~

The other proposed wells will be installed in a phased approach tied to future cell development. Specifically, MW-22 through MW-25 will be installed prior to waste filling in Cell 7A, MW-26 through MW-28 will be installed prior to waste filling in Cell 8, and MW-29 through MW-31 will be installed prior to waste filling in Cell 9. The monitoring well locations are shown on Figure 5B.1. The monitoring well details are included on Figure 5B.2.

There will be no lapse in detection monitoring while background is obtained for new wells. Wells in the existing monitoring system that are proposed to be plugged and abandoned will continue in detection monitoring until detection monitoring can begin in the modified monitoring system.

### 2.2 Monitoring Well Design

Groundwater monitoring well details are shown on Figure 5B.2 of this attachment. Typically, the wells consist of 4-inch diameter, flush-threaded PVC (Schedule 40) with 0.01-inch slotted PVC screens. Monitoring wells will have 10-foot screens. The filter pack sand will be a 20-40 grade silica sand and will be placed from total well depth to about 3 feet above the top of the well screen. A 3-foot-thick bentonite seal consisting of bentonite pellets will be hydrated in place on top of the filter pack sand. The remainder of the well boring is pressure grouted with bentonite grout to within 2 feet of the surface.

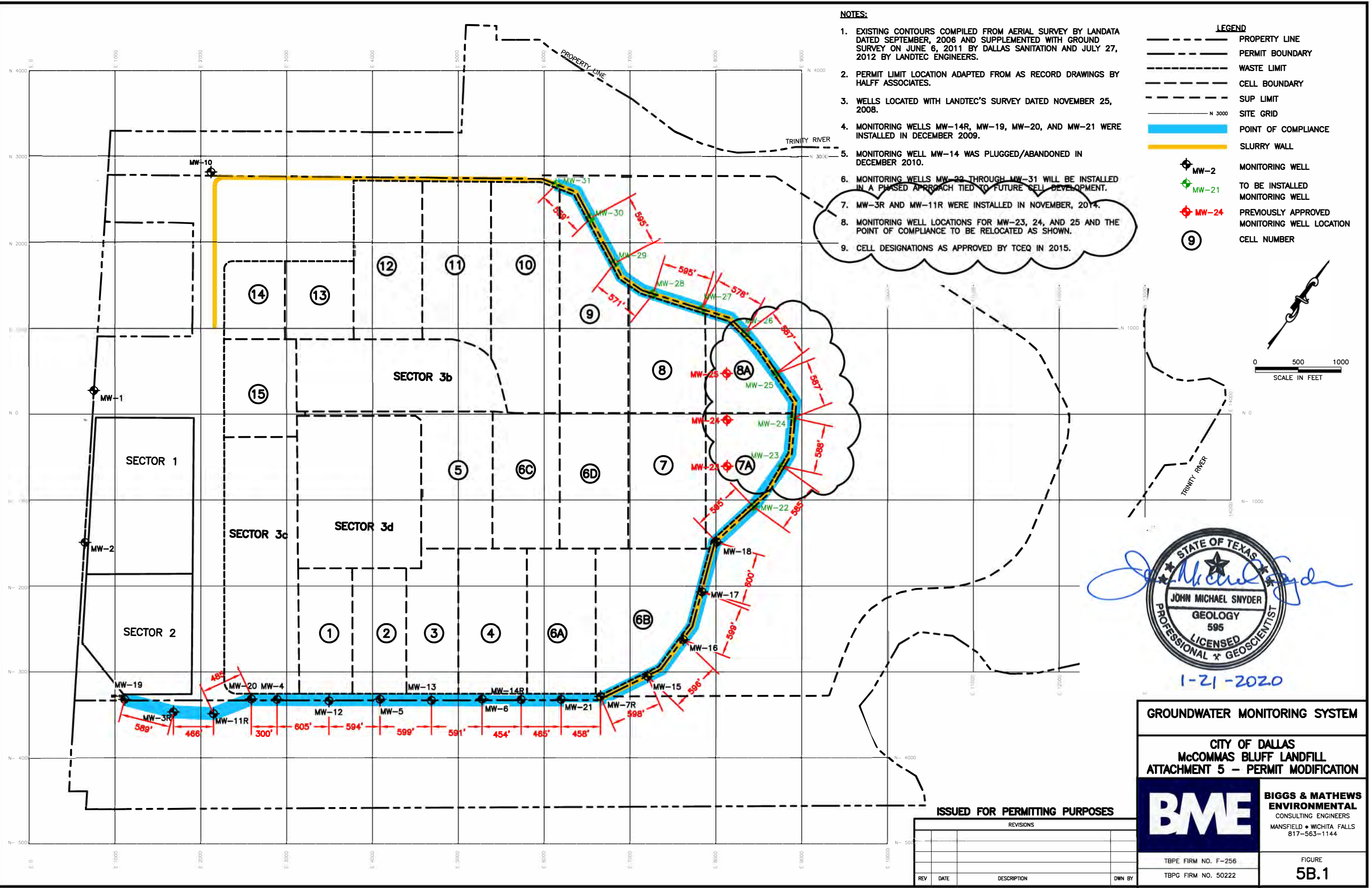
**Table 3**  
**McCommas Bluff Landfill**  
**Monitoring Well Details**

Monitoring Well No.	Northing	Easting	Ground Elevation  (ft/msl)	Total Well Depth		Top of Casing Elevation  (ft/msl)	Depth to Groundwater  (ft)	Screened Interval (ft)		Filter Pack Interval (ft)	
				(ft/msl)	(ft)			From	To	From	To
Currently Approved Monitoring Wells											
MW-1	274.43	757.33	398.90	370.40	28.50	400.73	12.40	17.50	27.50	12.00	28.50
MW-2	-1493.27	652.26	397.75	349.25	48.50	399.82	30.00	36.50	46.50	18.00	48.50
MW-3	-3330.70	1694.48	390.95	359.95	31.00	394.95	17.50	20.00	30.00	12.00	31.00
MW-4	-3320.27	2888.79	408.98	353.59	55.39	412.36	34.00	44.69	55.19	42.89	55.39
MW-3R	-3466.32	1682.19	387.65	358.65	29.0	389.96	19.02	18.50	28.50	16.50	29.0
MW-5	-3318.03	4087.43	410.03	353.03	57.00	413.47	40.30	46.10	56.60	45.00	57.00
MW-6	-3316.26	5277.17	410.74	353.59	57.15	413.47	33.00	46.65	57.15	44.65	57.15
MW-7R	-3287.13	6654.99	404.00	324.00	80.00	406.44	37.30	69.00	79.00	35.00	80.00
MW-10	2819.11	2121.16	408.23	367.73	40.50	410.70	19.00	29.40	39.90	27.50	40.50
MW-11	-3282.88	2230.41	412.06	357.06	55.00	415.80	44.00	37.00	55.00	35.00	55.00
MW-11R	-3487.80	2148.53	385.73	359.23	26.5	388.30	17.28	16.00	26.00	14.00	26.5
MW-12	-3337.86	3493.64	409.58	347.53	62.05	413.39	34.00	39.05	62.05	37.05	62.05
MW-13	-3332.73	4686.08	406.00	348.88	57.12	409.24	42.00	32.12	57.12	27.12	57.12
MW-14R	-3322.64	5731.55	407.40	357.90	49.50	409.86	37.00	39.50	49.50	34.50	49.50
MW-15	-3051.76	7204.41	403.00	321.00	82.00	405.85	37.83	72.00	82.00	40.00	82.00
MW-16	-2623.38	7618.84	403.10	346.10	57.00	406.60	34.37	47.00	57.00	29.00	57.00
MW-17	-2065.75	7838.63	403.00	343.00	60.00	406.73	35.58	50.00	60.00	30.00	60.00
MW-18	-1489.56	8007.27	403.10	341.10	62.00	406.77	36.05	52.00	62.00	32.00	62.00
MW-19	-3282.78	1152.39	402.57	351.57	51.00	405.18	27.18	41.00	51.00	36.00	51.00
MW-20	-3315.26	2588.15	410.03	360.53	49.50	412.36	36.00	39.50	49.50	34.00	49.50
MW-21	-3319.98	6196.52	407.23	355.23	52.00	409.63	37.05	42.00	52.00	36.50	52.00
MW-22*	-1077.06	8436.07	403.00	337.00	63.00	402.00	19.00	53.00	63.00	47.50	63.00
MW-23*	-605.89	8776.11	402.00	343.00	47.00	392.00	17.00	37.00	47.00	31.50	47.00
MW-24*	-43.63	8900.70	401.00	347.00	37.65	386.65	11.00	27.65	37.65	22.15	37.65
MW-25*	475.09	8696.34	402.00	353.00	31.01	386.01	11.00	21.01	31.01	15.51	31.01
MW-26*	944.39	8343.37	400.00	350.00	50.00	402.00	27.00	40.00	50.00	34.50	50.00
MW-27*	1224.85	7837.83	400.00	345.00	55.00	402.00	27.00	45.00	55.00	39.50	55.00
MW-28*	1403.41	7270.25	400.00	345.00	55.00	402.00	27.00	45.00	55.00	39.50	55.00
MW-29*	1757.04	6821.33	400.00	355.00	45.00	402.00	27.00	35.00	45.00	29.50	45.00
MW-30*	2280.86	6539.12	400.00	365.00	35.00	402.00	27.00	25.00	35.00	19.50	35.00
MW-31*	2673.68	6141.32	400.00	370.00	30.00	402.00	27.00	20.00	30.00	14.50	30.00
Proposed Monitoring Wells											
MW-3R	-3466.32	1682.19	390.00	360.00	30.00	392.00	17.00	20.00	30.00	14.50	30.00
MW-11R	-3487.80	2148.53	390.00	360.00	30.00	392.00	17.00	20.00	30.00	14.50	30.00

\*Wells will be installed prior to waste filling in Cells 7A, 8, and 9

**MCCOMMAS BLUFF LANDFILL**  
**APPENDIX 5B**  
**GROUNDWATER MONITORING SYSTEM**

J:\203\01\103\5B-1\_REVISED.dwg Layout: RL2 User: hparker DWN: GLW



# Groundwater Monitoring System Design Certification

## General Site Information

Site: McCommas Bluff Landfill

Site Location: Dallas County, Texas

MSW Permit No.: 62

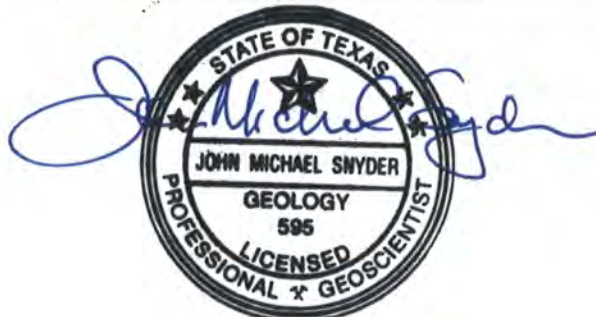
## Qualified Groundwater Scientist Statement

I, Michael Snyder, am a registered professional geologist in the State of Texas and a qualified groundwater scientist as defined in §330.3. I have reviewed the groundwater monitoring system and supporting data contained herein. In my professional opinion, the groundwater monitoring system is in compliance with the groundwater monitoring requirements specified in 30 TAC §330.401 through §330.409. This system has been designed for specification application to the McCommas Bluff Landfill (Permit No. MSW 62). I warrant that I have used that degree of care and skill ordinarily exercised under similar conditions by reputable members of my profession, practicing in the same or similar locality. No other warranty, expressed or implied, is made or intended.

Firm/Address: Biggs and Mathews Environmental, Inc.  
1700 Robert Rd. Suite 100  
Mansfield, TX 76063

Signature:   
Michael Snyder, P.G. No. 595 - Texas

Date: 1-21-2020



1-21-2020

FIGURE 5B.4

# **SITE DEVELOPMENT PLAN**

## **ATTACHMENT 14**

**ATTACHMENT 14**

**LANDFILL GAS MANAGEMENT PLAN**

**McCOMMAS BLUFF LANDFILL**

**PERMIT NO. MSW-62**

**CITY OF DALLAS**

**DALLAS COUNTY, TEXAS**

*Prepared by Robert W. Mosley, P.E.*

**March 1994**

**Revised**

**July 1998**

**June 2001**

**February 2002**

**September 2006**

**May 2016**

**January 2020**



**FOR PERMIT MODIFICATION  
REVISIONS TO SECTION 6 AND  
APPENDIX 1**

# LANDFILL GAS MANAGEMENT PLAN

## McCOMMAS BLUFF LANDFILL

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- 1.2 Facility Description

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- 2.2 Hydrogeologic conditions
- 2.3 Facility Structures within Property Boundary
- 2.4 Utility lines / Easements
- 2.5 Off-site Structures

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- 3.1 Perimeter Monitoring
  - 3.1.1 Monitoring Probe Placement
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  - 3.1.4 Monitoring Procedures
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- 3.4 Reporting

#### **4.0 CONTINGENCY PLAN**

- 4.1 Perimeter Monitoring
- 4.2 Facility Structure Monitoring
- 4.3 Utility Trench Vent Monitoring

#### **5.0 EXPLOSIVE GAS SAFETY**

#### **6.0 LANDFILL GAS COLLECTION**

**FOR PERMIT MODIFICATION  
REVISIONS TO SECTION 6**



## 6.0 LANDFILL GAS COLLECTION

---

### Existing LFG Collection and Control System

Currently, the site has an active LFG collection and control system (GCCS), as shown in Appendix D of Appendix 1 on Drawing 1. The existing GCCS consists of vertical LFG extraction wells, a piping network, a condensate management system, and a blower/flare facility, and a landfill gas-to-energy (LFGTE) facility. The existing blowers provide vacuum to the extraction wells through the LFG collection piping network. The extracted LFG is routed from the collection points to the LFGTE facility. Any remaining extracted LFG not sent to the LFGTE facility is diverted to an on-site flare where the gas is combusted.

From 2000-2015, approximately 265 wells were drilled, 119 wells were redrilled, and 35 horizontal collectors were added to the GCCS. These wells and horizontals are shown on Drawing 2 in Appendix D of Appendix 1.

In 2015, 5 remediation wells (RW-1 through RW-5) were installed in Sector 3C to limit migration of LFG in this area. In 2016, 6 additional remediation wells (RW-6 through RW-11) were installed in Sector 3C. All of these wells were completed similar to typical extraction wells at the site, except that they were drilled to within 5 feet of the bottom of waste. Following the installation of the remediation wells, 11 existing (PV-1 through PV-9, PV-11, and PV-12) geoprobes outside of waste near the edge of Sector 3C and Cell 1 were converted to passive vents. The locations of the remediation wells and passive vents is shown on Drawing 2A in Appendix D of Appendix 1.

In 2020, three of the existing converted passive vents (PV-1, PV-4, and PV-5) will be removed and replaced with passive vents with a larger diameter casing. Also, eight additional passive vents will be added in the area between PV-2 and PV-6 to provide a closer spacing between the vents in order to better intercept any potential migrating LFG. Three additional passive vents will also be added near MW-13. These additional passive vents are also shown on Drawing 2A in Appendix D of Appendix 1.

In addition, a shallow clay cutoff trench has been constructed on the south side of the site adjacent to Sector 3C, Cell 1, and Cell 2. This trench was installed near the limits of waste, above the anchor trench, to serve as a barrier to prevent potential migration of LFG using the liner protective cover layer as a pathway. To install the trench, all of the soil above the anchor trench, including the protective cover, was excavated. This area was then backfilled with compacted clay to ground surface.

As additional waste is placed, the existing LFG extraction wells will be extended and/or redrilled as necessary.

## **Future GCCS Expansions**

As the site develops, additional extraction wells will be installed as needed to reduce the buildup of internal gas pressures caused by the increased generation of LFG. Additional blowers and piping network will be installed as needed to provide the vacuum and capacity to handle the flow rate of LFG in the future.

## **Operation and Maintenance**

Wellhead and system monitoring will be performed on a routine basis to monitor overall system performance. As needed, system adjustments will be made to optimize the extraction of LFG from the landfill to control LFG migration, odors, and greenhouse gases. In addition, the system will be routinely visually inspected for any evidence of needed repairs or other maintenance. General maintenance procedures will include the following:

- Each wellhead will be monitored and adjusted as needed to control LFG while reducing oxygen intrusion into the landfill.
- Condensate sumps will be checked for proper operation.
- Blowers and flares will be inspected for proper operation.

**LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
DESIGN PLAN REPORT  
CITY OF DALLAS  
MUNICIPAL SOLID WASTE  
LANDFILL – MSW PERMIT No. 62**

*Appendix 1 to Attachment 14*

Prepared for City of Dallas

Dallas, TX

Original Report July 1998

Revised June 2001

Supplement to June 2001 Revision-February 2002

Revised September 2006

Revised May 2016

Revised January 2020



**FOR PERMIT MODIFICATION  
REVISIONS TO APPENDIX 1**



**ATTACHMENT 4**

**PERMIT REPLACEMENT PAGES**

# **SITE DEVELOPMENT PLAN**

## **ATTACHMENT 5**

**MCCOMMAS BLUFF LANDFILL  
DALLAS COUNTY, TEXAS  
TCEQ PERMIT NO. MSW 62**

**PERMIT MODIFICATION**

**ATTACHMENT 5  
GROUNDWATER CHARACTERIZATION REPORT AND  
GROUNDWATER MONITORING PLAN**

Prepared for

**City of Dallas**

February 2009

Revised June 2009

Revised June 2014

Revised January 2020



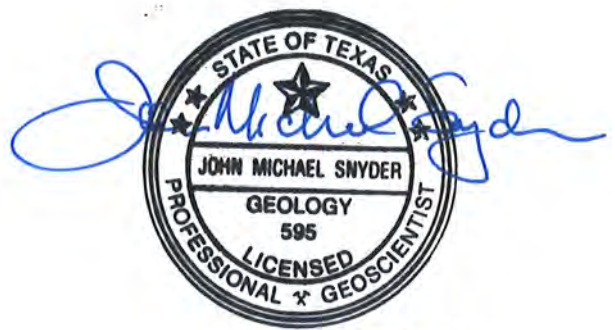
Prepared by

**BIGGS & MATHEWS ENVIRONMENTAL**

1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS  
FIRM REGISTRATION No. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS  
FIRM REGISTRATION No. 50222



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1-21-2020

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## **2 GROUNDWATER MONITORING SYSTEM**

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### **2.1 Monitoring Well Locations**

A revised monitoring system is herein proposed and shown on Figure 5B.1 that meets the spacing requirements of Subchapter J. Spacing between all wells in the proposed system is less than 600 feet.

The existing groundwater monitoring system monitors the Alluvium overlying the Austin Chalk. The existing approved system consists of 16 wells (3 upgradient and 13 downgradient wells) that are currently installed. The remaining wells in the approved system are to be phased in as cell development progresses in the northeast part of the site. The location of the approved monitoring plan is shown on Figure 5B.3.

The system will ultimately consist of 29 monitoring wells. MW-1, MW-2, and MW-10 are existing upgradient wells. MW-3R, MW-4, MW-5, MW-6, MW-7R, MW-11R, MW-12, MW-13, MW-14R, MW-15, MW-16, MW-17, MW-18, MW-19, MW-20, and MW-21 are currently installed. The other proposed wells will be installed in a phased approach tied to future cell development. Specifically, MW-22 through MW-25 will be installed prior to waste filling in Cell 7A, MW-26 through MW-28 will be installed prior to waste filling in Cell 8, and MW-29 through MW-31 will be installed prior to waste filling in Cell 9. The monitoring well locations are shown on Figure 5B.1. The monitoring well details are included on Figure 5B.2.

There will be no lapse in detection monitoring while background is obtained for new wells. Wells in the existing monitoring system that are proposed to be plugged and abandoned will continue in detection monitoring until detection monitoring can begin in the modified monitoring system.

### **2.2 Monitoring Well Design**

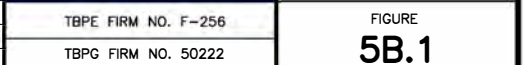
Groundwater monitoring well details are shown on Figure 5B.2 of this attachment. Typically, the wells consist of 4-inch diameter, flush-threaded PVC (Schedule 40) with 0.01-inch slotted PVC screens. Monitoring wells will have 10-foot screens. The filter pack sand will be a 20-40 grade silica sand and will be placed from total well depth to about 3 feet above the top of the well screen. A 3-foot-thick bentonite seal consisting of bentonite pellets will be hydrated in place on top of the filter pack sand. The remainder of the well boring is pressure grouted with bentonite grout to within 2 feet of the surface.

**Table 3  
McCommas Bluff Landfill  
Monitoring Well Details**

Monitoring Well No.	Northing	Easting	Ground Elevation (ft/msl)	Total Well Depth		Top of Casing Elevation (ft/msl)	Depth to Groundwater (ft)	Screened Interval (ft)		Filter Pack Interval (ft)	
				(ft/msl)	(ft)			From	To	From	To
Currently Approved Monitoring Wells											
MW-1	274.43	757.33	398.90	370.40	28.50	400.73	12.40	17.50	27.50	12.00	28.50
MW-2	-1493.27	652.26	397.75	349.25	48.50	399.82	30.00	36.50	46.50	18.00	48.50
MW-4	-3320.27	2888.79	408.98	353.59	55.39	412.36	34.00	44.69	55.19	42.89	55.39
MW-3R	-3466.32	1682.19	387.65	358.65	29.0	389.96	19.02	18.50	28.50	16.50	29.0
MW-5	-3318.03	4087.43	410.03	353.03	57.00	413.47	40.30	46.10	56.60	45.00	57.00
MW-6	-3316.26	5277.17	410.74	353.59	57.15	413.47	33.00	46.65	57.15	44.65	57.15
MW-7R	-3287.13	6654.99	404.00	324.00	80.00	406.44	37.30	69.00	79.00	35.00	80.00
MW-10	2819.11	2121.16	408.23	367.73	40.50	410.70	19.00	29.40	39.90	27.50	40.50
MW-11R	-3487.80	2148.53	385.73	359.23	26.5	388.30	17.28	16.00	26.00	14.00	26.5
MW-12	-3337.86	3493.64	409.58	347.53	62.05	413.39	34.00	39.05	62.05	37.05	62.05
MW-13	-3332.73	4686.08	406.00	348.88	57.12	409.24	42.00	32.12	57.12	27.12	57.12
MW-14R	-3322.64	5731.55	407.40	357.90	49.50	409.86	37.00	39.50	49.50	34.50	49.50
MW-15	-3051.76	7204.41	403.00	321.00	82.00	405.85	37.83	72.00	82.00	40.00	82.00
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MW-19	-3282.78	1152.39	402.57	351.57	51.00	405.18	27.18	41.00	51.00	36.00	51.00
MW-20	-3315.26	2588.15	410.03	360.53	49.50	412.36	36.00	39.50	49.50	34.00	49.50
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MW-27*	1224.85	7837.83	400.00	345.00	55.00	402.00	27.00	45.00	55.00	39.50	55.00
MW-28*	1403.41	7270.25	400.00	345.00	55.00	402.00	27.00	45.00	55.00	39.50	55.00
MW-29*	1757.04	6821.33	400.00	355.00	45.00	402.00	27.00	35.00	45.00	29.50	45.00
MW-30*	2280.86	6539.12	400.00	365.00	35.00	402.00	27.00	25.00	35.00	19.50	35.00
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\*Wells will be installed prior to waste filling in Cells 7A, 8, and 9

**MCCOMMAS BLUFF LANDFILL**  
**APPENDIX 5B**  
**GROUNDWATER MONITORING SYSTEM**



# Groundwater Monitoring System Design Certification

## General Site Information

Site: McCommas Bluff Landfill

Site Location: Dallas County, Texas

MSW Permit No.: 62

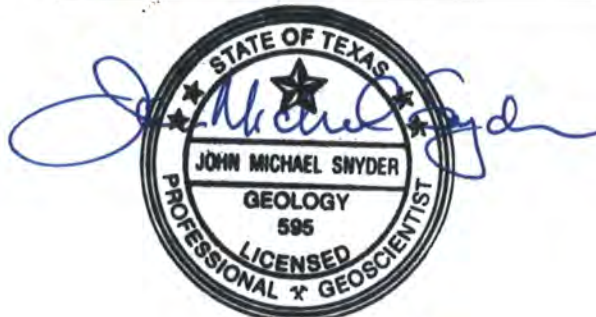
## Qualified Groundwater Scientist Statement

I, Michael Snyder, am a registered professional geologist in the State of Texas and a qualified groundwater scientist as defined in §330.3. I have reviewed the groundwater monitoring system and supporting data contained herein. In my professional opinion, the groundwater monitoring system is in compliance with the groundwater monitoring requirements specified in 30 TAC §330.401 through §330.409. This system has been designed for specification application to the McCommas Bluff Landfill (Permit No. MSW 62). I warrant that I have used that degree of care and skill ordinarily exercised under similar conditions by reputable members of my profession, practicing in the same or similar locality. No other warranty, expressed or implied, is made or intended.

Firm/Address: Biggs and Mathews Environmental, Inc.  
1700 Robert Rd. Suite 100  
Mansfield, TX 76063

Signature:   
Michael Snyder, P.G. No. 595 - Texas

Date: 1-21-2020



1-21-2020

FIGURE 5B.4

# **SITE DEVELOPMENT PLAN**

## **ATTACHMENT 14**

**ATTACHMENT 14**

**LANDFILL GAS MANAGEMENT PLAN**

**McCOMMAS BLUFF LANDFILL**

**PERMIT NO. MSW-62**

**CITY OF DALLAS**

**DALLAS COUNTY, TEXAS**

*Prepared by Robert W. Mosley, P.E.*

**March 1994**

**Revised**

**July 1998**

**June 2001**

**February 2002**

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**May 2016**

**January 2020**



**FOR PERMIT MODIFICATION  
REVISIONS TO SECTION 6 AND  
APPENDIX 1**

# LANDFILL GAS MANAGEMENT PLAN

## McCOMMAS BLUFF LANDFILL

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- 3.4 Reporting

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- 4.2 Facility Structure Monitoring
- 4.3 Utility Trench Vent Monitoring

**FOR PERMIT MODIFICATION  
REVISIONS TO SECTION 6**

#### **5.0 EXPLOSIVE GAS SAFETY**

#### **6.0 LANDFILL GAS COLLECTION**



## **6.0 LANDFILL GAS COLLECTION**

---

### **Existing LFG Collection and Control System**

Currently, the site has an active LFG collection and control system (GCCS), as shown in Appendix D of Appendix 1 on Drawing 1. The existing GCCS consists of vertical LFG extraction wells, a piping network, a condensate management system, and a blower/flare facility, and a landfill gas-to-energy (LFGTE) facility. The existing blowers provide vacuum to the extraction wells through the LFG collection piping network. The extracted LFG is routed from the collection points to the LFGTE facility. Any remaining extracted LFG not sent to the LFGTE facility is diverted to an on-site flare where the gas is combusted.

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In 2020, three of the existing converted passive vents (PV-1, PV-4, and PV-5) will be removed and replaced with passive vents with a larger diameter casing. Also, eight additional passive vents will be added in the area between PV-2 and PV-6 to provide a closer spacing between the vents in order to better intercept any potential migrating LFG. Three additional passive vents will also be added near MW-13. These additional passive vents are also shown on Drawing 2A in Appendix D of Appendix 1.

In addition, a shallow clay cutoff trench has been constructed on the south side of the site adjacent to Sector 3C, Cell 1, and Cell 2. This trench was installed near the limits of waste, above the anchor trench, to serve as a barrier to prevent potential migration of LFG using the liner protective cover layer as a pathway. To install the trench, all of the soil above the anchor trench, including the protective cover, was excavated. This area was then backfilled with compacted clay to ground surface.

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## **Future GCCS Expansions**

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- Condensate sumps will be checked for proper operation.
- Blowers and flares will be inspected for proper operation.

**LANDFILL GAS COLLECTION AND CONTROL SYSTEM  
DESIGN PLAN REPORT  
CITY OF DALLAS  
MUNICIPAL SOLID WASTE  
LANDFILL – MSW PERMIT No. 62**

*Appendix 1 to Attachment 14*

Prepared for City of Dallas

Dallas, TX

Original Report July 1998

Revised June 2001

Supplement to June 2001 Revision-February 2002

Revised September 2006

Revised May 2016

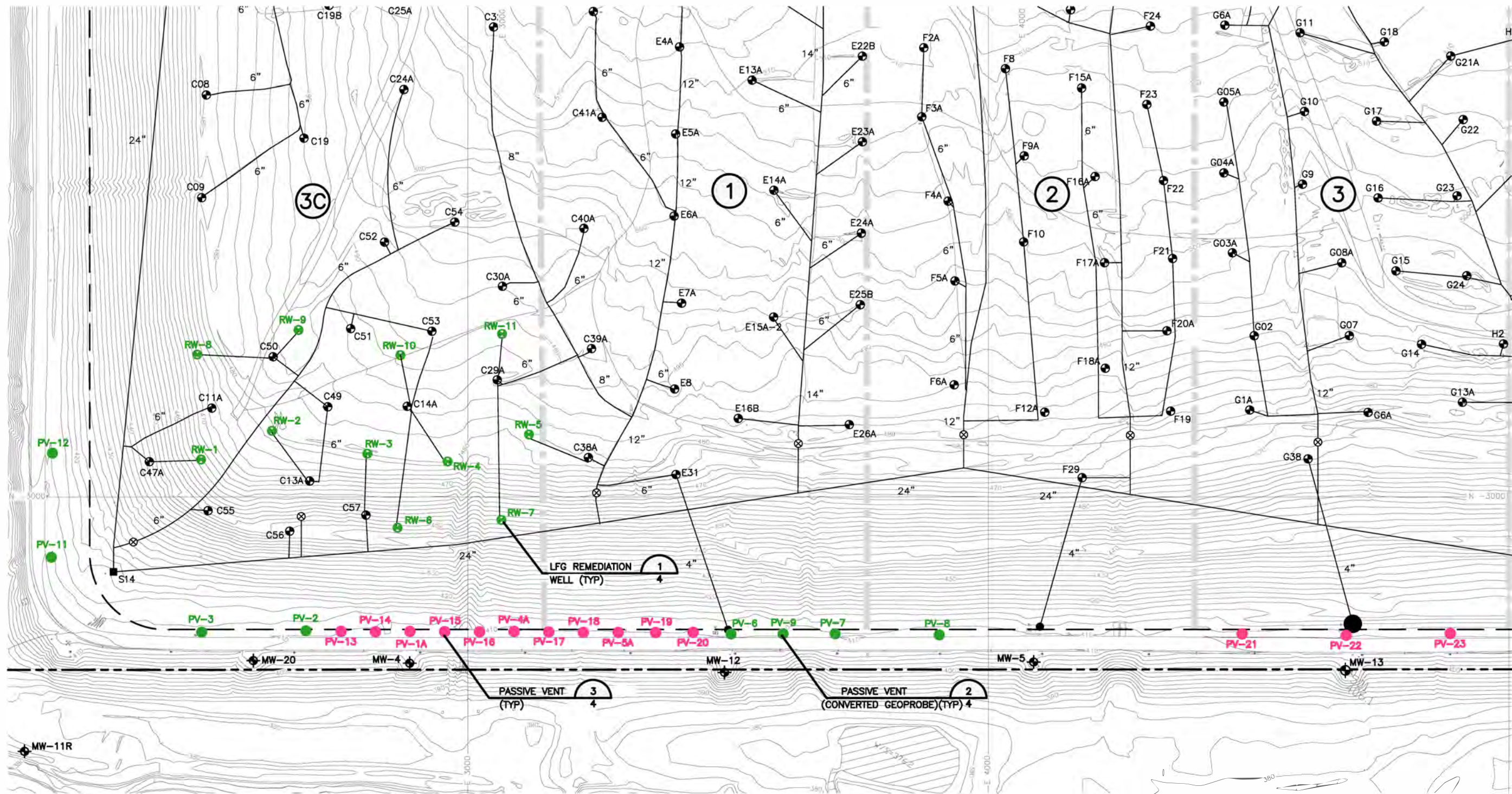
Revised January 2020



**FOR PERMIT MODIFICATION  
REVISIONS TO APPENDIX 1**



REVISIONS								TBPE FIRM NO. F-256		TBPG FIRM NO. 50222		DRAWING  <b>1</b>
								DSN. ALM	DATE : 01/2020			
								DWN. SRC	SCALE : GRAPHIC			
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY		CHK. JHP	DWG : 1-ExGCCS.dwg			



LEGEND

- PERMIT BOUNDARY  
--- LIMIT OF WASTE  
--- N -3000 SITE GRID  
--- 500 EXISTING CONTOUR  
--- CELL BOUNDARY
- 1 CELL DESIGNATION
- MW-11R MONITORING WELL
- F22 EXISTING LFG EXTRACTION WELL

- S14 EXISTING LFG COLLECTION PIPING
- EXISTING CONDENSATE SUMP OR BAROMETRIC TRAP
- EXISTING LFG ISOLATION VALVE
- EXISTING LCR CONNECTION
- INSTALLED LFG EXTRACTION WELL
- INSTALLED PASSIVE VENT
- PROPOSED PASSIVE VENT




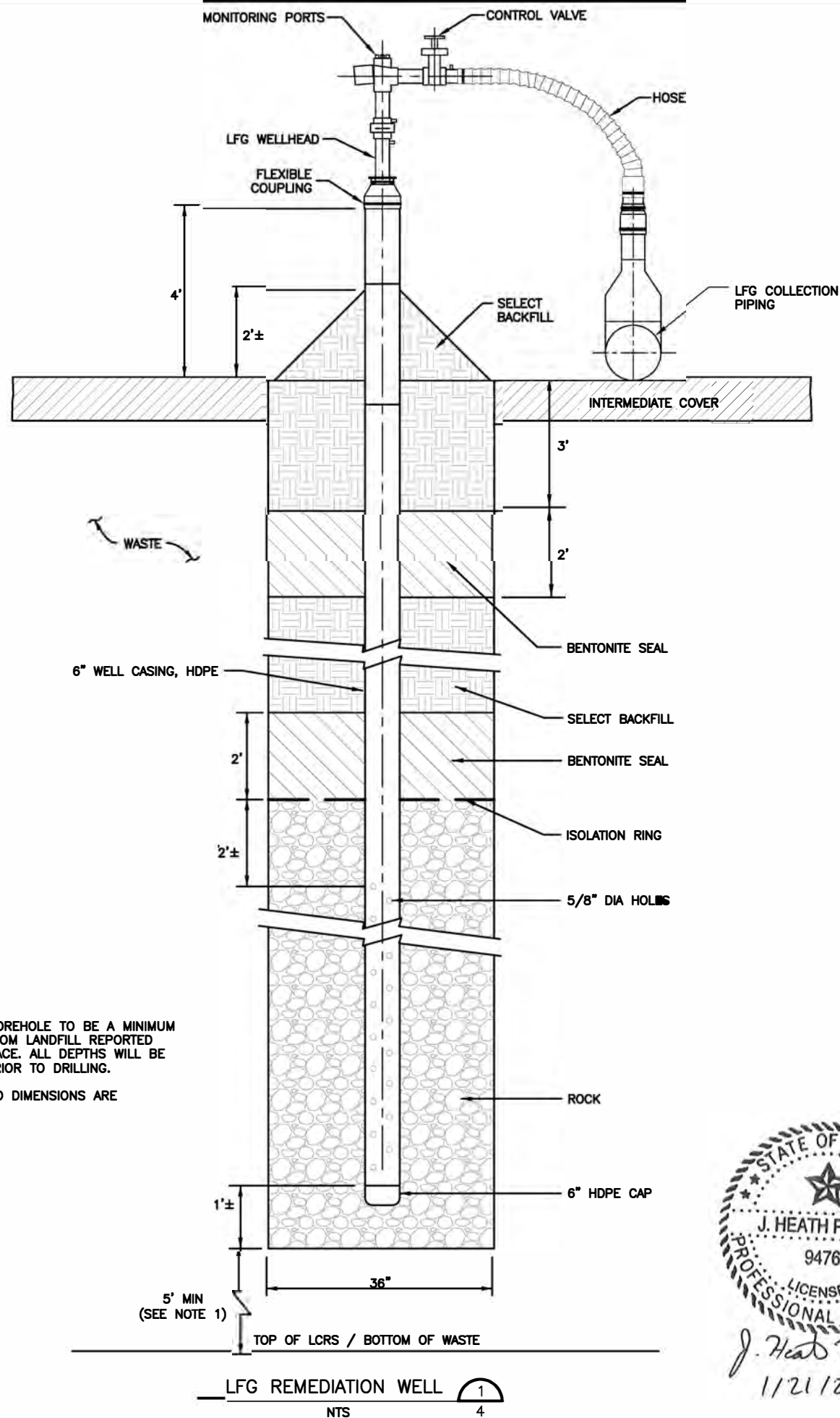
NOTES:

1. CONTOURS AND ELEVATIONS COMPILED BY DALLAS AERIAL SURVEYS, INC. FROM AERIAL PHOTOGRAPHY FLOWN JANUARY 3, 2014.

FOR PERMITTING PURPOSES ONLY

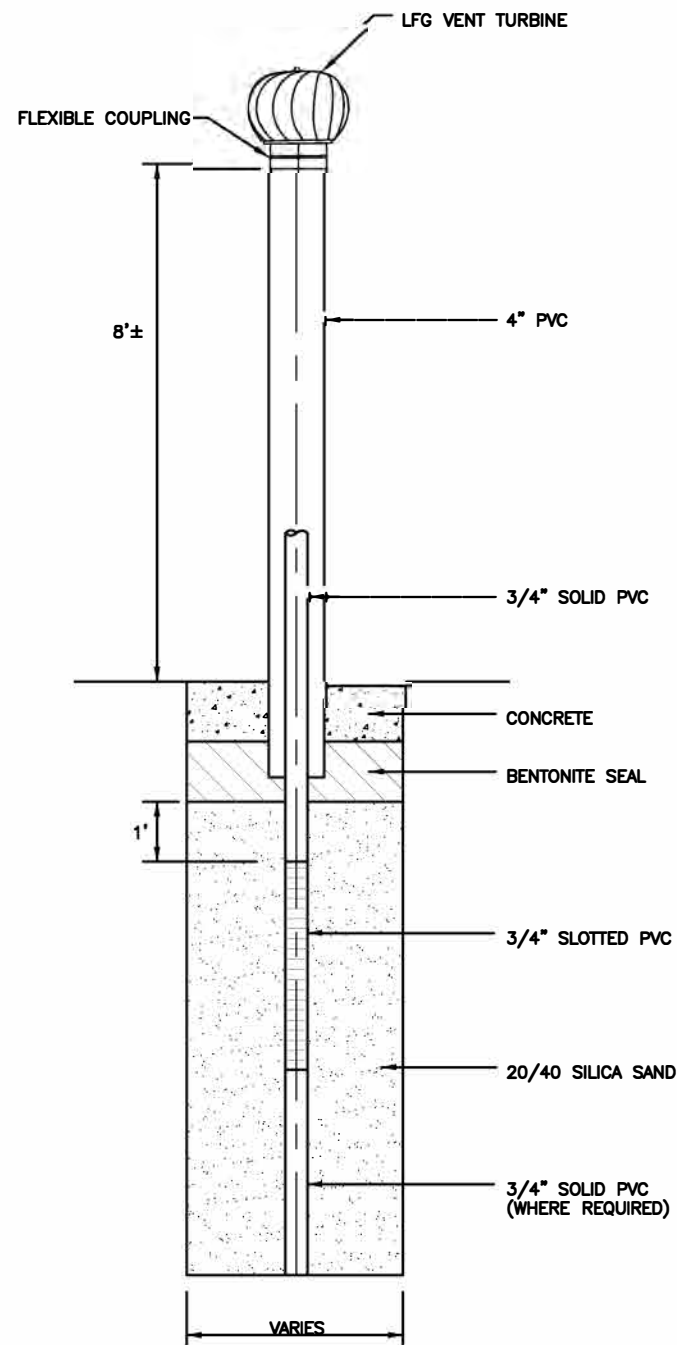
REVISIONS					
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY

LFG REMEDIATION UPGRADES (2015 - 2020)			
CITY OF DALLAS McCOMMAS BLUFF LANDFILL			
		BIGGS & MATHEWS ENVIRONMENTAL CONSULTING ENGINEERS MANSFIELD • WICHITA FALLS 817-563-1144	
TBPE FIRM NO. F-256		TBPG FIRM NO. 50222	
DSN. ALM	DATE : 01/2020	DRAWING 2A	
DWN. SRC	SCALE : GRAPHIC		
CHK. JHP	DWG : 2A-LFGRemediationUpgrades.dwg		



NOTES:

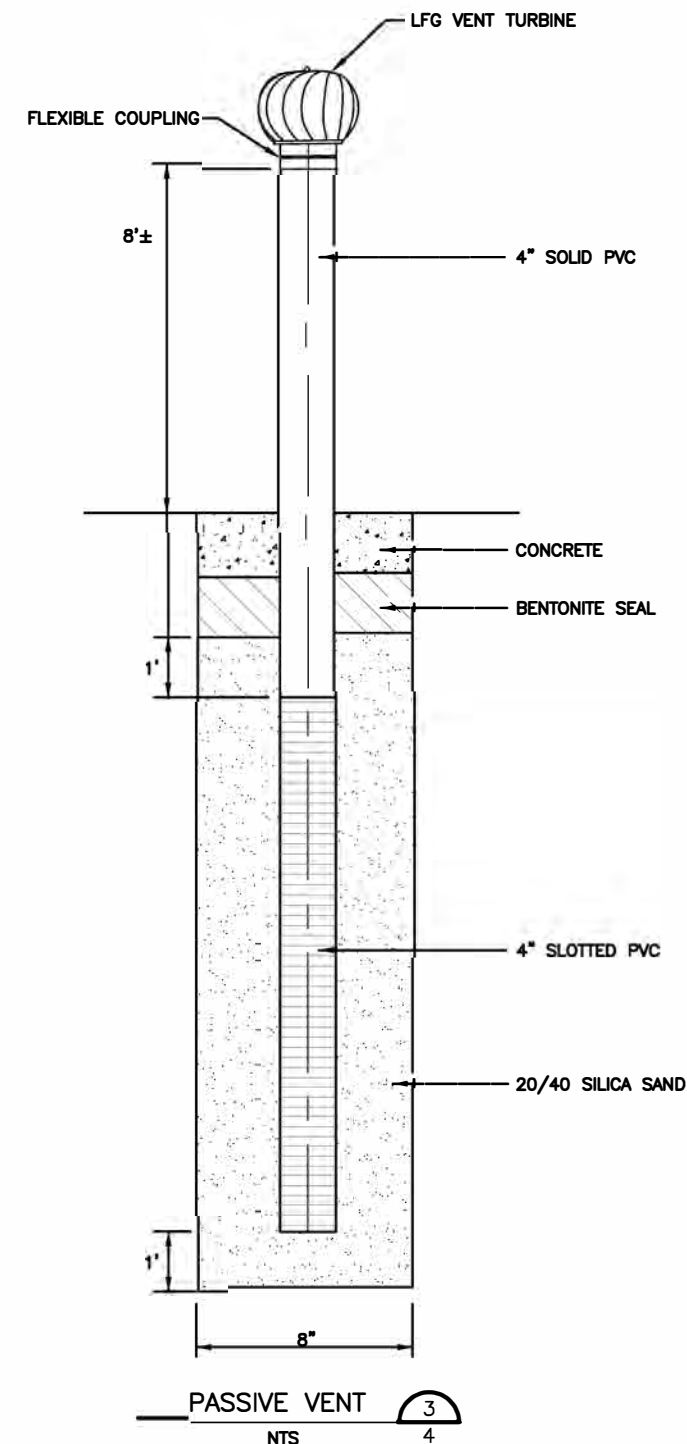
1. BOTTOM OF BOREHOLE TO BE A MINIMUM OF 5 FEET FROM LANDFILL REPORTED BOTTOM SURFACE. ALL DEPTHS WILL BE CONFIRMED PRIOR TO DRILLING.
2. ALL SIZES AND DIMENSIONS ARE APPROXIMATE.



PASSIVE VENT  
(CONVERTED GEOPROBE)

NOTE:

1. ALL SIZES AND DIMENSIONS ARE APPROXIMATE.



NOTE:

1. ALL SIZES AND DIMENSIONS ARE APPROXIMATE.

FOR PERMITTING PURPOSES ONLY

REVISIONS						TBPE FIRM NO. F-256		TBPG FIRM NO. 50222	
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY	DSN. JHP	DATE : 11/19	DRAWING 4
							DWN. SRC	SCALE : GRAPHIC	
							CHK. JHP	DWG : 4-RemediationWellDet.dwg	

LFG REMEDIATION DETAILS

CITY OF DALLAS  
McCOMMAS BLUFF LANDFILL



BIGGS & MATHEWS  
ENVIRONMENTAL  
CONSULTING ENGINEERS

MANSFIELD • WICHITA FALLS  
817-563-1144