

Texas Commission on Environmental Quality
Application for a Medical Waste Registration
TERRABELLA ENVIRONMENTAL SERVICES
PLEASANTON RN110896578
Registration 40313
Pleasanton, Atascosa County, Texas

Initial Application Date: 31 MARCH 2020
Application Revision Date: 9 JUNE 2020
Application Revision Date: 31 AUGUST 2020

Prepared for

TERRABELLA ENVIRONMENTAL SERVICES INC

433 Zander Lane

Pleasanton, TX 78064

Prepared by

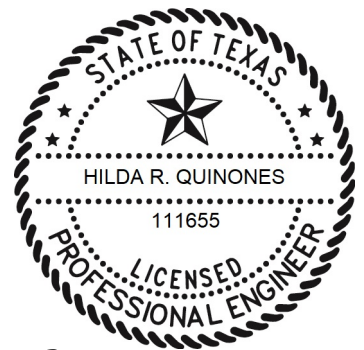
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Texas Registered Engineering Firm F-15923

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 August 31, 2020

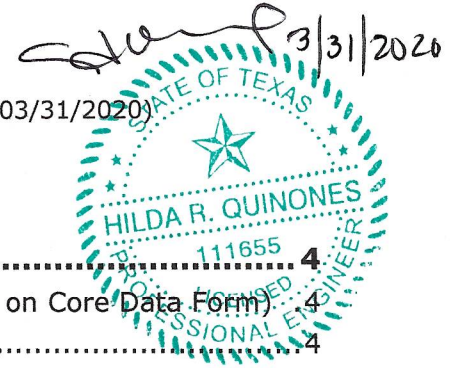


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Section 1— General Information

1.1 Facility Information (must match regulated entity information on Core Data Form)

Facility Name: Terrabella Environmental Services Pleasanton

Regulated Entity Reference No. (if issued): RN110896578

Physical or Street Address (if available): 433 Zander Ln

City: Pleasanton County: Atascosa State: TX Zip Code: 78064

(Area Code) Telephone Number: 210-892-4496 Email Address: mcarr@terrabellaes.com

Latitude (Degrees, Minutes, Seconds, or Decimal Degrees): 28° 58' 56.33" N

Longitude (Degree, Minutes, Seconds, or Decimal Degrees): 98° 26' 32.30" W

Activities Conducted at the Facility (check all that apply)

☒ Storage ☒ Treatment ☒ Transfer ☐ Other: _____

Describe the location of the facility with respect to known or easily identifiable landmarks:

The facility is approximately 0.65 miles northwest of the intersection of Interstate Highway 37 (IH-37) with Corgey Road.

Detail access routes from the nearest United States or state highway to the facility:

If heading northbound on IH-37, take exit 109 to TX-97 W. Turn left (west) onto TX-97 W, then turn left (south) onto Corgey Road, then turn left onto Zander Lane to reach the facilities' gated entrance.

1.2 Applicant Information

The owner of a facility is the applicant, to whom the registration would be issued.

Owner of Facility (must match customer information on Core Data Form)

Owner Name: Terrabella Environmental Services Inc

Contact Person's Name: Michael Carr Title: President

Customer Reference No. (if issued): CN604334904

Mailing Address: PO Box 39

City: Leming County: Atascosa State: Texas Zip Code: 78050

(Area Code) Telephone Number: 210-892-4496 Email Address: mcarr@terrabellaes.com

Operator of Facility (if not the same as Owner of Facility)

Operator Name: Same as Owner

Contact Person's Name: _____ Title: _____

Customer Reference No. (if issued): CN _____

Mailing Address: _____

City: _____ County: _____ State: _____ Zip Code: _____

(Area Code) Telephone Number: _____ Email Address: _____

Consultant (if applicable)

Firm Name: Q&A Diversified LLC

Texas Board of Professional Engineers Firm Registration Number: F-15923

Contact Person's Name: Hilda Quinones, P.E. Title: President

Texas Board of Professional Engineers License Number (if applicable): 111655

Mailing Address: PO Box 761283

City: San Antonio County: Bexar State: Texas Zip Code: 78245

(Area Code) Telephone Number: 210-896-8711 Email Address: hildaq@qnadiversified.com

1.3 Governmental Entities Information

Texas Department of Transportation

District: San Antonio

District Engineer's Name: Mario R. Jorge, PE

Street Address or P.O. Box: 4615 NW Loop 410

City: San Antonio County: Bexar State: TX Zip Code: 78229

(Area Code) Telephone Number: 210-615-1110 Email Address: _____

Local Government Authority Responsible for Road Maintenance (if applicable)

Agency Name: TXDOT Pleasanton Office

Contact Person's Name: Clint Rodriguez

Street Address or P.O. Box: 2154 S. Second St.

City: Pleasanton County: Atascosa State: TX Zip Code: 78064

(Area Code) Telephone Number: 830-281-5384 Email Address: _____

City Mayor

City Name: Pleasanton

City Mayor's Name: Travis Hall, Jr.

Mailing Address: 108 Second St.

City: Pleasanton County: Atascosa State: TX Zip Code: 78064

(Area Code) Telephone Number: 830-569-3867 Email Address: mayor@pleasantontx.gov

Council of Governments (COG)

COG Name: Alamo Area Council of Governments (AACOG)

COG Representative's Name: The Honorable Robert L. Hurley

COG Representative's Title: County Judge, Atascosa County

Street Address or P.O. Box: 8700 Tesoro Dr, Suite 160

City: San Antonio County: Bexar State: TX Zip Code: 78217

(Area Code) Telephone Number: 210-362-5260 Email Address: _____

Local Government Jurisdiction

Is the facility located outside the territorial limits or extraterritorial jurisdiction of a city or town? (30 TAC §326.67(a)) Yes ☒ No ☐

If yes, and county requires a license, you must obtain a license from the county, and the county must send a copy of the license to the appropriate TCEQ regional office.

City Health Authority (if applicable)

Agency Name: Defer to the Texas Department of State Health Services (TDSHS)

Contact Person's Name: Gale Morrow, MPH, MCHES

Street Address or P.O. Box: 7430 Louis Pasteur Dr

City: San Antonio County: Bexar State: TX Zip Code: 78229

(Area Code) Telephone Number: 210-949-2000 Email Address: _____

County Judge Information

County Judge's Name: The Honorable Robert L. Hurley

Street Address or P.O. Box: 1 Courthouse Circle Dr, Suite 206

City: Jourdanton County: Atascosa State: TX Zip Code: 78026

(Area Code) Telephone Number: 830-769-3093 Email Address: countyjudge@atascosacounty.texas.gov

County Health Authority (if applicable)

Agency Name: Defer to the Texas Department of State Health Services (TDSHS)

Contact Person's Name: Gale Morrow, MPH, MCHES

Street Address or P.O. Box: 7430 Louis Pasteur Dr

City: San Antonio County: Bexar State: TX Zip Code: 78229

(Area Code) Telephone Number: 210-949-2000 Email Address: _____

State Representative

House District Number: 31

Representative's Name: Ryan Guillen

District Office Address: 1411 Bensdale Rd, Room 108

City: Pleasanton County: Atascosa State: TX Zip Code: 78064

(Area Code) Telephone Number: 830-569-4222 Email Address: _____

State Senator

Senate District Number: 19

State Senator's Name: Pete Flores

District Office Address: 1 University Way, TAMU SA - CAB Room 354

City: San Antonio County: Bexar State: TX Zip Code: 78224

(Area Code) Telephone Number: 210-784-5024 Email Address: _____

1.4 Posting of Application on Website [30 TAC §326.69(e)]

Provide the web address (URL) of the publicly accessible internet website where the application and all revisions will be posted:

http:// www.qnadiversified.com/permits

1.5 Copy of Application for Public Viewing

Name of the Public Place: Pleasanton Public Library

Physical Address: 115 N Main St

City: Pleasanton County: Atascosa State: TX Zip Code: 78064

(Area Code) Telephone Number: 830-569-5901

1.6 Notice of Opportunity to Request Public Meeting

Notice Requirement

The owner or operator is required by 30 TAC §326.73 to provide notice of the opportunity to request a public meeting, and to post notice signs.

Indicate the party responsible for publishing notice:

☒ Applicant (Owner or Operator) ☐ Consultant

1.7 Application Fee

Indicate how the application fee was paid. Attach a photocopy of the check or a copy of the electronic payment receipt.

Check ☐ Online ☒

If paid online, e-Pay confirmation number: Voucher Numbers 461994 and 461995

1.8 Facility Supervisor's License [30 TAC §326.71(c)]

Indicate the type of license that the Solid Waste Facility Supervisor (as defined in 30 TAC Chapter 30), will obtain prior to commencing facility operations:

Class A ☐ Class B ☒

Section 2— Facility Design Information

2.1 Impact on Surrounding Area [30 TAC §326.71(a)(5)(A) & (B)]

This section addresses the facility's impacts on cities, communities, groups of property owners, or individuals (attach additional pages to answer the following questions, if necessary):

Describe the character of the surrounding area land uses within one mile of the facility:

The facility site location is in a rural industrial/commercial area. Surrounding land uses within one (1) mile of the facility include industrial/commercial areas, residential areas, pasture land and undeveloped areas. Large tracts and pasture land surround the immediate area of the facility. All access roads to the property are paved. Maps showing the general character of the areas adjacent to the facility, including public roads, towns and the nature of development of adjacent lands are shown in Attachment 3.

Identify growth trends within five miles of the facility with directions of major development:

An interview with the property owners and review of historic aerial imagery from 1996, 1999, 2010, 2018 and 2020, reveals limited growth within five miles of the facility. However, the area along Corgey Road (south) has experienced significant growth in the last five years. Commercial and industrial facilities have been developed at a high rate. Zander Lane appeared on the aerials around 2014, and several industrial developments have occurred to the south and west of the property since then.

Indicate the approximate number of residences and other uses (e.g. schools, churches, cemeteries, historic structures and commercial sites, etc.) within one mile of the facility:

There are no schools, daycares or hospitals within one mile. Two small cemeteries are located 0.5 miles west of the property along Corgey Road. There are also three churches and approximately 49 commercial sites, 77 residences, and zero historic structures. The nearest residence is located on the parcel that borders the property to the north approximately 30 LF from the edge of the property and 330 LF from the edge of lot 2 where a fence-line of the work area will be located.

Indicate the distance to the nearest residence(s): 30 ☒ feet ☐ miles

Provide directions to the nearest residence(s):

From Terrabella Environmental Services Inc located at 433 Zander Lane, head west on Zander Lane for 0.3 miles, then turn right on Corgey Road. Travel 0.5 miles, then turn right onto TX-97 E. Travel 0.3 miles and nearest residence will be on the right at 3269 TX-97, Pleasanton, TX 78064.

Indicate the distance to the nearest commercial establishment(s): 0 ☒ feet ☐ miles

Provide directions to the nearest commercial establishment(s):

The nearest commercial establishment is located on the parcel that borders the property to the west on Zander Lane.

2.2 Transportation [30 TAC §326.71(e)]

Access Roads

Complete Table 1 regarding the roads that will be used to access the site.

Table 1. Roads That Will be Used to Access the Site.

Name of Road	Surface Type and Number of Lanes
Zander Lane	Asphalt, 2 Lane
Corgey Road	Asphalt, 2 Lanes
TX-97 Interstate 37	Asphalt, 4 Lanes Asphalt, 4 Lanes

Daily Traffic Volume

Complete Table 2 regarding existing and expected volume of vehicular traffic on access roads within one mile of the facility, and the projected volume of traffic expected to be generated by the facility on access roads within one mile of the facility.

Table 2. Traffic Volume.

Vehicle Traffic	Volume (vehicles per day)
Existing Vehicle Traffic	Zander Lane 2018 AADT 150 Corgey Road 2018 AADT 680 TX-97 2018 AADT 9,945 IH-35 2018 AADT 24,248
Expected Vehicle Traffic	Zander Lane 2038 AADT 225 Corgey Road 2038 AADT 952 TX-97 2038 AADT 13,923 IH-35 2038 AADT 34,199
Projected Vehicle Traffic Generated by Facility	Less than 50 per day

Describe the source of or method used to obtain the volumes (attach additional pages to answer this question if necessary):

The TXDOT Statewide Planning Map viewer (<https://www.txdot.gov/inside-txdot/division/transportation-planning/maps/statewide-planning.html>) was accessed on

March 23, 2020. The data reflects the 2018 annual average daily traffic (AADT) counts in vehicles per day and their locations.

If traffic volume was determined by counts in the field, indicate the locations where the counts were conducted (attach additional pages to answer this question if necessary):

NA

2.3 Floodplain and Wetlands [30 TAC §326.71(f)]

Will the facility be located within a 100-year floodplain?

Yes ☐ No ☒ Identify the floodplain zone X

Attach a copy of the Federal Emergency Management Administration administrator (FEMA) flood map for the area. Although part of the property is located within the floodplain the facility will not be located in the floodplain.

If the facility will be within a 100-year floodplain, attach documentation demonstrating that the facility is designed and will be operated in a manner to prevent washout of waste during a 100-year storm event, or that the facility has obtained a conditional letter of map amendment from the FEMA.

Will the facility be located in wetlands?

Yes ☐ No ☒

If yes, attach documentation to the extent required under Clean Water Act, §404 or applicable state wetlands laws.

2.4 Buffer Zones and Easement Protection [30 TAC §326.71(h)(3)]

Is the buffer zone in any location at the facility less than 25 feet wide?

Yes ☐ No ☒

If yes, describe your alternative buffer zone and how it will allow access for emergency response and maintenance (attach additional pages to answer this question if necessary):

NA

2.5 Waste Management Unit Designs [30 TAC §326.71(i)]

Waste Management Unit Details

List each waste management unit in Table 3. Include attachments documenting manufacturer specifications.

Table 3. Design Details and Manufacturer Specifications for Waste Management Units.

Unit Type	Minimum Number of Units	Design Details	Approximate Dimensions	Approximate Capacity per Unit
Autoclave	2	Yes	Typical	3,000 lbs/hr
Boiler	1	No	Typical	
Container Wash	1	No	Typical	
Alternate Treatment Technology	1	Yes	Typical	Varies 400-2,000 lbs/hr
Refrigerated Containers	1	None. Typical semi-trailers and box trucks.	Varies (24ft to 50ft trailers/trucks)	Varies (30-130 cubic yards)

Foundations and Supports

Provide a generalized description of construction materials for slab and subsurface supports of all storage and processing components (attach additional pages to answer this question if necessary):

The facility building is supported on a reinforced concrete slab-on-grade foundation of sufficient thickness capable of supporting the building and waste processing activities.

Processing units and containerized waste will rest directly on the slab-on-grade building foundation. Specially designed slabs or subsurface supports are not required. Building slab details are provided in Attachment 2. Concrete slabs, curbs and walls will provide the required spill storage capacity. Minimum curb dimensions and spill containment calculations are also presented in Attachment 2.

Contaminated Water Management

Describe how storage and processing areas will be designed to control and contain spills and prevent contaminated water from leaving the facility. For unenclosed containment areas, also account for precipitation from a 25-year, 24-hour storm (attach additional pages to answer this question if necessary):

The facility will be constructed, maintained and operated to manage run-on and run-off during the peak discharge of a 25-year rainfall event and prevent off-site discharge of waste, including in-process and processed materials. Waste storage will occur in enclosed building in non-bulk containers and/or holding tanks located inside and outside the

processing building. Secondary containment curbing inside the building has been designed to manage run-on and run-off during peak discharge of a 25-year rainfall event.

The site operator will monitor the activities at the facility to ensure that no pollutants, solid waste, or non-point source pollution of the waters of the United States or Waters of the State, or adjacent to, occurs at any time.

To ensure that the facility is not endangered, the building and access roads will be located at least 100 feet from the flood plain.

The waste processing area is located inside the enclosed building with a concrete floor. The facility is designed so that surface water drainage, in and around the facility, will not run onto, into, or off the storage area from outside the building. Transport trucks are elevated which prevents surface water from running onto or into them.

Due to the processing of the waste inside the building and the packaging requirements of the waste, no surface water contamination from operations at this facility is anticipated.

CONTAMINATED WATER MANAGEMENT PLAN

DISPOSAL OF LIQUIDS

All liquids resulting from the operation of the facility will be disposed of in a manner that will not cause surface water or groundwater pollution. The operator will provide for authorized disposal of wastewaters resulting from managing the waste or from cleaning and washing by transport to a wastewater facility. Contaminated water will not be discharged to surface water without specific written authorization.

Contaminated water resulting from contact with untreated medical waste is not anticipated unless a spill occurs. In the event of a spill, the waste will be collected and placed into the treatment unit. Any contaminated water generated from contact with untreated medical waste resulting from a spill will be absorbed and managed as untreated medical waste and placed into the treatment unit.

Working surfaces, including containers, that have come in contact with untreated medical waste will be cleaned and/or sanitized. Process water resulting from routine cleaning and sanitizing activities in the building will be managed within the building and placed into the treatment unit or discharged into the City of Pleasanton sanitary sewer system. Cleaning and sanitizing of reusable containers may be conducted outside of the building within the covered area with concrete curbing. The concrete paving and curbing will prevent water

generated from cleaning and sanitizing in this area from being discharged off-site. The water generated from cleaning and sanitizing in this area will be controlled and directed by the concrete curbing and discharged to the City of Pleasanton sanitary sewer system via a drain located within the concrete curbing. Process water generated from condensation of autoclave steam will be discharged to the City of Pleasanton sanitary sewer system. Management of discharges will be in accordance with local requirements, and all necessary authorizations and approvals will be obtained and retained within the operating record at the site.

Waters not generated from the sanitation of surfaces in contact with untreated medical waste (i.e. water from restroom, office area) will be discharged to the City of Pleasanton sanitary sewer system.

COLLECTION OF CONTAMINATED WATER AND LEACHATE

Any contaminated water generated from contact with untreated medical waste resulting from a spill will be absorbed and managed as untreated medical waste and placed into the treatment unit. Process water resulting from routine cleaning and sanitizing activities will be absorbed (i.e. with cloth or paper towel) or collected (i.e. with mop and bucket) and either placed into the processing unit or discharged to the City of Pleasanton sanitary sewer system. Water generated from cleaning and sanitizing containers within the covered area will be contained by the concrete paving and curbing and discharged to the City of Pleasanton sanitary sewer system via a drain located within the concrete curbing. Contaminated water can be properly managed without collection units (i.e. storage tanks and/or lined units).

Waste will be stored inside the enclosed building, an enclosed transport vehicle/trailer or covered roll-off outside of building. Therefore, no contaminated water or leachate will occur outside of the building or transport vehicle/trailer and collection units will not be required.

LEACHATE AND GAS CONDENSATE - This section is not applicable to this MSW Processing Facility.

SEPTIC DISCHARGE - No contaminated water will be discharged to a septic system.

OFF-SITE DISCHARGE - No contaminated water will be discharged off-site without specific written authorization under Texas Pollutant Discharge Elimination System (TPDES) authority.

WASTEWATER DISCHARGE

Wastewaters discharged to a treatment facility permitted under the Texas Water Code, Chapter 26 must not:

1. interfere with or pass-through the treatment facility processes or operations;
2. interfere with or pass-through its sludge processes, use, or disposal; or
3. otherwise be inconsistent with the prohibited discharge standards, including 40 Code of Federal Regulations (CFR), Part 403, General Pretreatment Regulations for Existing and New Source Pollution.

OIL AND GREASE EFFLUENT

The concentration of oil and grease in the daily effluent leaving the facility and entering the public sewer system will not exceed 200 milligrams per liter, the concentration established by the treatment facility permitted under Texas Water Code, Chapter 26, or the National Pollutant Discharge Elimination System.

LAGOONS, OPEN-TOP STORAGE TANKS, OPEN VESSELS, AND UNDERGROUND STORAGE - This facility is not a liquid waste transfer facility, therefore §330.207(h) is not applicable to this MSW Processing Facility.

2.6 Treatment Requirements [30 TAC §326.71(j)]

Attach a written procedure for the operation and testing of any equipment used, and for the preparation of any chemicals used in treatment.

Medical waste shall be treated in accordance with the provisions of 25 TAC 1.136 (relating to Approved Methods of Treatment and Disposition).

GENERAL DESCRIPTION AND TREATMENT 326.71 (j)(1)

The processing area at the facility will be located within a fully enclosed metal building with closeable bay doors. The building has reinforced concrete floors and concrete parking areas outside. The building was designed in accordance with all applicable local building code and land development code requirements. The facility will be surrounded a four-foot barbed wire

fence or a six-foot chain-link fence or equivalent with lockable gates. Refer to Attachment 2 - Facility Layout Map.

No disposal operations will take place at the facility; only waste transfer, storage and processing. Solid waste will be transported into the facility in private or commercial collection vehicles. The containerized waste will be unloaded and visually inspected to verify shipping document/manifest information as well as proper labeling and packaging per State and Federal regulations. Packaging requirements for regulated medical waste received by this facility include, but are not limited to, the following: Texas Commission on Environmental Quality - 30 TAC 330.1207, United States Department of Transportation - 49 CFR 178, and Occupational Safety and Health Administration - 29 CFR 1910. In the event unauthorized waste is discovered prior to unloading, the waste will be rejected and returned to the generator via the transporter. The unloading of containerized waste will be confined to the processing area of the building. Untreated medical waste will be managed in accordance with the provisions of 25 TAC Subchapter K and 30 TAC Subchapter Y.

In the event that reusable sharps containers are received at the facility, the reusable sharps containers will be diverted to a sharps consolidation area. The containerized sharps will be taken to the autoclave unit for processing and the reusable sharps containers will be washed and returned to generators. Terrabella Environmental Services Inc may use an automated sharps container washer at the facility.

In the event untreated medical waste needs to be refrigerated, the applicant's registered transport refrigeration vehicles will be utilized. The size and capacity of the company's fleet of refrigeration vehicles may change from time to time due to increase/decrease in fleet size. Currently, the fleet includes, but is not limited to, 24 foot to 50 foot box trailers and trucks with capacities ranging from approximately 60 to 130 cubic yards. Terrabella Environmental Services Inc may also rent additional refrigeration units, if necessary.

The waste may be treated by steam sterilization or a Texas Department of Health approved alternate treatment technology. The two processes for the treatment of untreated medical waste that may be utilized at the facility are described below.

1. STEAM STERILIZATION: The steam sterilization system will consist of Bond-Tech autoclaves, or equivalent. Steam sterilization is a widely accepted waste processing system used in Texas for meeting regulations requiring medical waste to be treated and rendered non-infectious prior to the final disposal at an approved municipal solid waste landfill. The process consists of placing the untreated waste in a pressure vessel and forcing steam into the chamber and through the waste. When the waste is exposed to the proper temperatures as defined by the 25 Texas Administrative Codes for autoclave technology for the approved time, the waste will be rendered sterilized. The parameters of time, temperature and pressure of the steam sterilization system used at this facility will meet or exceed those required by the Department of State Health Services requirements for steam sterilization found in 25 TAC 1.133(b)(4)(8). Once the waste is sterilized, the treated waste will be stored on-site and then transported and disposed of at a TCEQ approved municipal solid waste landfill in accordance with 25 TAC 1.136 and 30 TAC 1219(b)-(e).

2. ALTERNATE TREATMENT TECHNOLOGY: Once the waste is received, the waste is transferred into a tub/cart and the net weight of the waste is electronically recorded. Once the waste has been placed on the lift and weighed, the operator engages the automated cart lift system and the lid covering the feed hopper is opened while the tub is raised and tilted to allow the waste to enter the feed hopper. As the hopper lid closes, the waste is drawn into the primary treatment chamber where the waste is treated using a Texas Department of Health approved chemical agent. The waste proceeds through the primary treatment chamber continually being shredded/macerated by the cutting blades.

After passing through the primary treatment chamber, the waste moves to the secondary treatment chamber which is located directly below the primary treatment chamber where the final mixing and shredding/maceration will occur. The treated waste is forced from the secondary chamber into the waste exit chute. The waste passes a pH probe prior to being deposited in a waste container. A pH reading below 11 or above 12.5 will result in an automated shut-down of the system. In the event an automated shut-down occurs, the operator shall capture the waste in the waste exit chute and place it in red bags to be reprocessed until an acceptable pH range is achieved. Once treated, the shredded/macerated, dry waste is considered routine municipal solid waste and will be disposed of at a TCEQ approved municipal solid waste landfill.

TESTING 326.71 (j)(1)(2)

Routine performance testing using Bacillus species biological indicators will be performed in order to determine a minimum four log ten reduction in the numbers of active microorganisms. The operator will conduct weekly biological testing for autoclaved waste to verify if waste has been treated in accordance with applicable rules.

DISPOSAL

Treated waste will be disposed in accordance with 30 TAC 326.41(c) and 25 TAC 1.136 in a permitted municipal solid waste landfill or other authorized disposal of processing facility. Any wastewater from the automated sharps container washer will be disposed of in an approved manner.

An average transport frequency is expected to be five days. Waste shipments will be manifested.

Prior to shipment, the waste may be compacted, and all visible markings identifying the waste as medical waste will be covered with a label clearly identifying that the waste is treated medical waste. Treated sharps will be placed in containers designed for sharps and marked or labeled as containing treated waste. Treated medical waste that contains non-encapsulated hypodermic needles or syringes or intact red bags will be accompanied by a shipping document that includes a statement that the shipment contains such items and that these items have been treated in accordance with 25 TAC 1.136.

Section 3— Facility Closure

3.1 Closure Plan [30 TAC §326.71(k)]

The operator must comply with the closure requirements listed in 30 TAC §326.71(k).

List other activities that the facility will conduct during closure, if any (attach additional pages to answer this question if necessary):

The facility's closure plan is prepared in accordance with applicable portions of 30 TAC 326.71.

CLOSURE REQUIREMENTS

Waste Removal 326.71(1) - Upon closure, the owner or operator shall remove all waste, waste residue, and any recovered materials. All facility units shall be dismantled and removed off-site or decontaminated.

Final Disposition of Waste 326.71(2) - The owner or operator will evacuate all untreated medical waste to a TCEQ authorized facility and disinfect all receiving, processing and post-processing areas. Final disposition of treated medical waste will be at an authorized facility.

Facility Closure Completion 326.71(3) - Closure of the facility will be completed within 180 days following the last acceptance of processed or unprocessed materials unless otherwise directed or approved in writing by the executive director.

CERTIFICATION OF FINAL FACILITY CLOSURE 326.71 (I)

Public Notice 326.71(I)(1) - No later than 90 days prior to the initiation of final facility closure, Terrabella Environmental Services Inc, through a public notice in the newspaper(s) of largest circulation in the vicinity of the facility, will provide public notice for final facility closure. This notice will provide the name, address, and physical location of the facility; the registration number; and the last date of intended receipt of waste. Terrabella Environmental Services Inc will also make available an adequate number of copies of the approved final closure plans for public access and review. Terrabella Environmental Services Inc will also provide written notification to the executive director of the intent to close the facility and place the notice of intent in the site operating record.

Signage 326.71(I)(2) - Terrabella Environmental Services Inc shall post a minimum of one sign at the main entrance and all other frequently used points of access for the facility

notifying all persons who may utilize the facility of the date of closing for the entire facility and the prohibition against further receipt of waste materials after the stated date. Further, suitable barriers shall be installed at all gates or access points to adequately prevent the unauthorized dumping of solid waste at the closed facility.

Required Submittals to Executive Director 326.71(l)(3) - Within ten days after completion of final closure activities of the facility, the owner and operator shall submit to the executive director by registered mail:

(A) A certification, signed by an independent licensed professional engineer, verifying that final facility closure has been completed in accordance with the approved closure plan. The submittal to the executive director shall include all applicable documentation necessary for certification of final facility closure; and

(B) A request for voluntary revocation of the facility registration.

3.2 Closure Cost Estimate [30 TAC §326.71(m)]

Provide itemized closure cost estimates in Table 4. The cost estimates must meet the requirements listed in 30 TAC §326.71(m).

Attach documents detailing any additional unit closure costs not itemized. Enter the total of those additional unit closure costs on line 13 of the closure cost worksheet in Table 4.

Table 4. Closure Cost Estimates Worksheet.

Item No.	Item Description	Unit of Measurement	Quantity	Unit Cost	Total Cost
1	Site Evaluation and Engineering Review	NA	1	1,200	1200
2	Bid Document and Procurement	NA	1	500	500
3	Contract Award and Administration	NA	1	1,000	1000
4	Clean-Up, Removal and Transport of Waste Stored On-Site	NA	1	10,000	10000
5	Disposal of Waste at an Authorized Facility	TON	50	26	1300
6	Waste Treatment	TON	50	200	10000
7	Process Units Dismantling	NA	1	1,440	1440

8	Wash Down and Disinfection of Facility and Processing Units	NA	1	1,440	1440
9	Vector Control	NA	1	100	100
10	Site Security	NA	1	100	100
11	Signs, Newspaper Notice and TCEQ Notice	NA	1	1,750	1750
12	Facility Inspection and Closure Certification by Licensed Engineer	NA	1	1,500	1500
13	Additional Storage and Processing Unit Closure Cost Items (describe in attachments)	NA	NA	NA	NA
14	Storage and Processing Unit Closure Costs Subtotal	NA	NA	NA	30330
15	Contingency Cost 15%	NA	NA	NA	4550
16	Total Closure Cost Estimate	NA	NA	NA	34880

Section 4— Site Operating Plan

4.1 General [30 TAC §326.75(a)]

Provide the function and minimum qualifications for each category of key personnel to be employed at the facility including supervisory personnel in the chain of command (attach additional pages to answer this question if necessary):

The facility will employ three categories of key personnel for day-to-day operations. These categories include:

Manager - The General Manager, Facility Manager or Manager's Designee. The manager's function in daily operations is to oversee daily facility operations and compliance, equipment maintenance and repair, training and personnel safety. The manager may act as a Waste Handler or Records Administrator if the need warrants. The minimum qualification for Manager is general facility and regulatory knowledge.

Waste Handler - The Waste Handler's function in daily operations is to control facility access and screen incoming waste. The Waste Handler operates the facility in compliance with the TCEQ approved Site Operating Plan as well as the company's Standard Operating Procedures which do not require a TCEQ authorization. Items under the Waste Handler's purview include but are not limited to: equipment operation, manage waste flow, container flow and facility housekeeping. The Waste Handler may act as Records Administrator or Manager if the need warrants. The minimum qualification for Waste Handlers is general facility and regulatory knowledge.

Records Administrator -The Records Administrator controls recordkeeping and reporting. They assist with maintaining the facility operating record as described in §326.75(e). The Records Administrator may act as the Waste Handler or Manager if the need warrants. The minimum qualification for Records Administrators is general facility and regulatory knowledge.

A trained facility employee will be responsible for accepting and directing the transport of all wastes and being at the unloading area each time that waste is unloaded.

As the trucks and containers enter the building for delivery, the load will be visually checked for appropriate waste packaging by trained employees for unauthorized or prohibited waste before processing. If the load is characteristic of an authorized waste and appears to conform to the waste designated on the manifest or bill of lading, the vehicle will be directed to the unloading area.

If the waste appears to be unrepresentative of the source designated on the documentation accompanying the load, if it is suspected or confirmed as containing an unauthorized, unknown, hazardous or PCB waste, or if the contents are determined to be incompatible with facility operations, it will not be unloaded, and the transporter will remove the waste from the site. The observation and analysis results for such loads will be documented and kept in the site records.

Appropriate signs and all-weather access routes to the unloading area will be used to indicate where trucks can unload.

The unloading of any hazardous waste or prohibited waste at this facility shall not be allowed. Any hazardous waste or prohibited waste identified shall be segregated and returned promptly to the transporter or generator of the waste.

The unloading of waste in unauthorized areas is prohibited. The owner or operator shall ensure that any waste deposited in an unauthorized area will be removed immediately and disposed of properly. The unloading of the waste will be confined to as small an area as practical. If the site operator becomes aware that hazardous wastes have been inadvertently accepted, he will immediately contain the accepted waste by terminating waste flow and will return it to the transporter or generator if practical, or contact a company licensed and permitted to handle and dispose of such wastes. The TCEQ will be immediately notified if any prohibited or unauthorized wastes are accidentally accepted. Records of the notification will be kept in the site operating record and will include the date and time of notification, the individual contacted, and the information reported.

At the time of this application, Mr. Michael Carr is the Operations Director who will be responsible for operating the facility. Mr. Carr has 28 years of management experience in the liquid waste and industrial waste processing business. Mr. Carr holds a Class B MSW license. Mr. Aaron Campbell is the Facility Manager / Operator that will be responsible for the operating of the facility. Mr. Campbell has 23 years of management experience in the liquid waste and industrial waste processing business.

Describe the procedures that the operating personnel will follow for the detection and prevention regarding the receipt of prohibited wastes, including random inspections of packaging of incoming loads, records, and training (attach additional pages to answer this question if necessary):

Various procedures to detect and control the receipt of prohibited wastes will be implemented at the facility. These procedures include but are not limited to: 1) random inspections of packaging for incoming loads; 2) recording inspections and inspection results; 3) training for appropriate facility personnel responsible for inspecting or observing loads to recognize prohibited waste and informing facility customers of prohibited wastes. Facility personnel may inform waste transportation drivers of facility requirements and screening for prohibited wastes. Information regarding the prohibited wastes may be posted on facility signs or provided as a written list to customers and drivers.

If facility personnel identify prohibited waste or portions of prohibited waste within a collection vehicle, that vehicle or portions of waste within that vehicle will be rejected and immediately sent back to the waste generator.

4.2 Waste Acceptance [30 TAC §326.75(b)]

Describe all sources and characteristics of medical wastes to be received for storage and processing or disposal (attach additional pages to answer this question if necessary):

The facility will process, store and transfer medical waste, outdated/off specification pharmaceuticals and seized drugs. Sources of these waste streams include hospitals, clinics, nursing homes, and other health care related facilities. In addition to these waste streams, the facility may accept Animal and Plant Health Inspection Services (APHIS) and International Maritime Pollution Protocol (MarPol) wastes. Prior to accepting APHIS and/or MarPol wastes, the facility will seek approval from the Administrator of APHIS. The facility may also receive municipal solid waste (MSW) that would be classified as medical waste if it were generated by health care-related facilities as identified in 326.61(h). After the receipt of MSW as previously described, the waste will be subjected to the same requirements as regulated medical waste.

Regulated medical waste will be received in approved Federal and State required packaging. Packaging requirements for regulated medical waste received by this facility include, but are not limited to, the following: Texas Commission on Environmental Quality - 30 TAC 326.19 relating to Packaging, 30 TAC 326.21 relating to Labeling Containers Excluding Sharps, United States Department of Transportation - 49 CFR Part 78, and Occupational Safety and Health Administration - 29 CFR Part 1910.

Describe the sources and characteristics of recyclable materials, if applicable, to be received for storage and processing (attach additional pages to answer this question if necessary):

Information required by this provision is not applicable to this MSW Facility. No liquid or solid waste will be recycled at this time.

Maximum amount of waste to be received daily: 50 ☐ pounds/day ☒ tons /day

Maximum amount of waste to be stored at any point in time: 50 ☐ pounds ☒ tons

Maximum length of time waste is to remain at the facility: 182 ☐ hours ☒ days

Specify the maximum time that unprocessed and processed wastes will be allowed to remain on-site:

Processed: 152 ☐ hours ☒ days

Unprocessed: 30 ☐ hours ☒ days

Identify the intended disposition of processed and unprocessed waste received at the facility (attach additional pages to answer this question if necessary):

Treated waste will be sent to a TCEQ approved municipal solid waste landfill for disposal. Untreated medical waste will be managed in accordance with 25 TAC Subchapter K and all applicable sections found in 30 TAC Chapter 326.

4.3 Generated Waste [30 TAC §326.75(c)]

Describe how all liquids and solid waste resulting from the facility operations will be disposed of in a manner that will not cause surface water and groundwater pollution (attach additional pages to answer this question if necessary):

All liquids resulting from the operation of the facility will be disposed of in a manner that will not cause surface water or groundwater pollution. The operator will provide for authorized disposal of wastewaters resulting from managing the waste or from cleaning and washing by transport to a wastewater facility. Contaminated water will not be discharged.

All process and wash water will be either placed back into the processing unit or will be discharged to the City of Pleasanton sanitary sewer system. Management of process water will be in accordance with Local, State, and Federal requirements. All necessary authorizations and approvals will be obtained and retained within the operating record at the site.

Effluent from the facility will be analyzed annually for TPH, fats, oil and grease, and pH. Records of each analysis will be maintained at the facility for a minimum of three years. Sampling and analysis will be done according to EPA-approved methods.

The waste processing area is located inside the enclosed building with a concrete floor. The facility is designed so that surface water drainage, in and around the facility, will not run onto, into, or off the storage area from outside the building. Transport trucks are elevated which prevents surface water from running onto or into them.

Contaminated water resulting from contact with untreated medical waste is not anticipated unless a spill occurs. In the event of a spill, the waste will be collected and placed into the treatment unit. Any contaminated water generated from contact with untreated medical waste resulting from a spill will be absorbed and managed as untreated medical waste and placed into the treatment unit.

Solid wastes generated by the facility are characterized as municipal solid waste. Solid wastes treated at the facility can be adequately managed by TCEQ or other appropriate agency approved MSW processing facilities.

Due to the processing of the waste inside the building and the packaging requirements of the waste, no surface water or groundwater contamination from operations at this facility is anticipated. The site operator will monitor the activities at the facility to ensure that no pollutants, solid waste, or non-point source pollution occurs at any time.

4.4 Access Control [30 TAC §326.75(g)]

Describe how public access to the facility will be controlled (attach additional pages to answer this question if necessary):

Public access to the loading/unloading areas of the facility is controlled by a perimeter fence consisting of four-strand barbed wire fence and a six-foot chain-link fence. A security gate, activated by key-pad, automatically closes after each vehicle entry. Uncontrolled access to the facility, to include administrative offices, storage and processing areas shall be prevented. An attendant shall be on-site during operating hours. Access control to the facility will be maintained at all times, regardless of operating hours. Safety bumpers and collision bollards for vehicles will be provided at hoppers.

Describe how access roads and parking areas will be maintained to control dust and prevent mud from being track off-site (attach additional pages to answer this question if necessary):

The facility access road is a two-lane, paved road designed for the expected traffic flow. There are adequate turning radii for all transport vehicles that will utilize the facility. Parking will be provided for transport trucks/trailers, employees and visitors.

The all-weather surfaces within the facility will be maintained to control dust and mud.

The on-site area to be used by transport vehicles will be paved or gravel. In the event there is a problem related to windblown dust, water will be used to control windblown dust. Within the facility, a standard garden hose connected to an on-site water source may be sufficient to apply water.

The tracking of mud onto public roadways from the processing facility is not anticipated due to the access roads and on-site road being paved. All-weather surfaces will be maintained to prevent/minimize the tracking of dust and mud onto public access roads.

Access to the facility will be controlled by a perimeter fence, with lockable gates. Identify or describe the type of fence that will be installed at the facility:

- ☐ A four-foot-high barbed wire fence;
- ☐ A six-foot-high chain-link fence; or

☒ Other: Access to the registration boundary will be controlled by a perimeter fence with lockable gates. The perimeter fence will consist of a four-foot barbed wire fence and a six-foot chain-link fence. Waste storage will be located within the perimeter fencing and/or processing building but will not be located within the buffer zone or any easements or right-of-way crossing the facility.

4.5 Operating Hours [(30 TAC §326.75(i))]

Provide the operating hours of the facility; ***include justification for hours outside of 7:00 a.m. to 7:00 p.m., Monday through Friday:***

Operating hours will be from 7:00 a.m. to 7 p.m., Monday through Friday. The facility is not open to the general public for disposal. An attendant shall be on-site during operating hours. The facility may conduct operations for maintenance and housekeeping, as needed, outside of normal operating hours. Terrabella may conduct additional temporary operating hours to address disaster or other emergency situations, or other unforeseen circumstances that could result in the disruption of waste management services in the area. Terrabella shall record, in the site operating record, the dates, times, and duration when any alternative operating hours are utilized.

List the alternative operating hours, if any, of up to five days in a calendar-year period:

Terrabella Environmental Services Inc does not anticipate the need for alternative operating hours for special occasions, special purpose events, holidays, or other special occurrences.

Section 5— Other Site Operating Plan, Financial Assurance, and Closure Requirements

Attach additional pages describing how the facility will comply with the following requirements.

30 TAC §326.75(d), Storage

Storage of Solid Waste Requirements 326.75 (d) (1)(2)

Waste will be stored in a secure manner and location that affords protection from theft, vandalism, inadvertent human or animal exposure, rain, water, and wind. Solid wastes will be stored in a manner that does not constitute a fire, safety, or health hazard, provide food or harborage for animals and vectors or generate noxious odors. Solid waste will be contained as not to result in litter.

Untreated medical waste may be temporarily stored at the site unrefrigerated for a time period not to exceed 72 hours. For untreated medical waste held longer than 72 hours, the waste will be stored at a temperature of 45 degrees Fahrenheit or less.

Windblown litter is not anticipated at the waste processing facility. Medical waste, or other approved waste, transported to the site must be packaged/containerized according to state/federal requirements. Waste will be unloaded within the building or loading/unloading dock area. In the event of heavy winds, the overhead doors of the building may be closed to minimize the potential for windblown waste and/or litter. When windblown litter is found, it will be picked up at least once per day on the days the facility is in operation to minimize unhealthy, unsafe, or unsightly conditions. A portable fence, perimeter fencing, or other suitable practice may be employed to confine windblown material resulting from operations, as needed.

Containers Storage of Solid Waste 326.75 (d)(3)

Containers shall be of suitable strength to minimize animal scavenging or rupturing during the collection process. Reusable containers will be maintained in a clean condition so that the containers used for wastes do not constitute a nuisance and to retard the harborage, feeding and propagation of vectors. Containers to be mechanically handled will be designed to prevent spillage or leakage during storage, handling, or transport.

30 TAC §326.75(e), Recordkeeping and Reporting

Recordkeeping and Reporting Requirements 326.75(e)(1)

A copy of the registration, the approved registration application, and all other required plans or related documents, including as-built construction drawings and specifications will be maintained at the facility at all times. All plans will be considered part of the operating record for the facility. These plans will be available for inspection by agency representatives.

Information and data will be promptly recorded, as appropriate, in the operating record and retained at the facility during the active life of the facility. The owner or operator will promptly record and retain the following information, in either a printed or electronic format, in the operating record:

1. Any and all applicable location-restriction demonstrations.

2. Inspection records and training procedures.
3. Closure plans and any monitoring, testing, or analytical data relating to closure requirements.
4. All cost estimates and financial assurance documentation relating to financial assurance for closure.
5. Copies of all correspondence and responses relating to the operation of the facility, modifications to the registration, approvals, and other matters pertaining to technical assistance.
6. All documents, manifests, shipping documents, trip tickets, etc., involving special waste.
7. Any other document(s) as specified by the approved authorization or by the Executive Director.

Signatory Requirements 326.75 (e)(3)

For signatories to reports, the following conditions apply.

Signing of Reports 326.75 (e)(3)(A)

The owner or operator will sign all reports and other information requested by the Executive Director as described in 30 TAC 305.128 or by a duly authorized representative of the owner or operator. Authorization of the duly authorized representative will be in accordance with 305.44(a) of this title.

Assignment of New Signatory 326.75 (e)(3)(B)

If an authorization under this section is no longer accurate because of a change in individuals or position, a new authorization will be submitted to the Executive Director prior to, or together with, any reports, information, or applications to be signed by an authorized representative.

Signatory Certification Statement 326.75 (e)(3)(C)

Authorized signatories will make the certification in 30 TAC 305.44(b).

Records Availability 326.75 (e)(4)

All information contained in the operating record will be furnished upon request to the Executive Director and will be made available at all reasonable times for inspection by the Executive Director.

Records Retention 326.75 (e)(5)

The owner or operator will retain all information contained within the operating record and the different plans required for the facility for the life of the facility.

Alternate Recordkeeping Schedule 326.75 (e)(6)

The Executive Director may set alternative schedules for recordkeeping and notification requirements as specified in 326.75 (e) 1-5.

Transportation 326.75 (e)(7)

In accordance with 30 TAC 330.1211, transporters must provide documentation of each waste shipment from the point of collection through and including the unloading of the waste at a facility authorized to accept the waste.

Owners or operators of a medical waste processing facility accepting delivery of untreated medical waste for which a shipping document is required for processing shall ensure each of the following requirements are met:

1. When accepting delivery of untreated medical waste for which a shipping document/manifest is required under 30 TAC 330.1211, the owner or operator will ensure each shipment is accompanied by a shipping document which designates the processing facility to receive the waste. The owner or operator will sign the shipping document/manifest and immediately give at least one copy of the signed shipping document to the transporter.
2. The primary transporter will certify receipt of the waste, and the name and TCEQ number of the transfer station will be provided if transfer of waste occurs.
3. A copy of the shipping document will be retained showing receipt by a secondary transporter, if applicable, or the treatment facility.
4. The original shipping document will accompany each shipment of untreated waste to its final destination.
5. Shipping documents will contain the information required by 30 TAC 330.1211 (h).
6. Within 45 days after the delivery, the owner or operator will send a written or electronic copy of the shipping document to the generator. The shipping document/manifest will include a statement that the waste was treated in accordance with 25 TAC 1.136.
7. Copies of waste shipping documents will be maintained for three years in the main transporter office.

30 TAC §326.75(f), Fire Protection Plan

This Fire Protection Plan is designed to serve as a guide to aid personnel in the proper procedures/protocols in the event of a fire or other emergency situation.

An adequate supply of water under pressure will be available for firefighting purposes.

Terrabella Environmental Services Inc will ensure all fire detection/fighting equipment will be in continuous compliance with local fire codes. If local fire codes are changed, the Fire Protection Plan will be revised as needed. The following fire protection plan shall be followed.

1. Fire Prevention Procedures

- ◆ No burning will be permitted at the site.
- ◆ No smoking will be allowed in the waste storage areas.

2. Source of Fire Protection

- ◆ Fire extinguishers will be kept within the building as required by the local fire code and all other applicable regulations. Once an extinguisher has been used, it will be refilled or replaced prior to returning it to its proper location. Each extinguisher will be installed and maintained in accordance with NFPA 10, or as amended.
- ◆ Fire extinguishers will be rated as ABC extinguishers.
- ◆ Fire extinguishers will be tagged and inspected on an annual basis and recharged as necessary.
- ◆ Smoke detector(s) will be placed in the building.
- ◆ The City of Pleasanton will be a primary source of fire protection. 2012 International Fire Code as adopted by the City of Pleasanton.

3. Employee Training and Safety Procedures

- ◆ All personnel will be properly trained on fire extinguisher use and capabilities.
- ◆ All personnel will be properly trained on the general rules for fighting fires.

4. General Rules for Fire Fighting

- ◆ Call 911 to notify the Fire Department and give the following prepared information:

Name of Company:	Terrabella Environmental Services Inc
Address:	433 Zander Lane, Pleasanton, TX 78064
Nearest Cross Street(s):	Zander Lane and Corgey Road

- ◆ Alert other facility personnel and tenants so they may evacuate the onsite buildings using the closest exit. If safe, shut all doors, and turn off the ventilation system to prevent spread of fire.
- ◆ Personnel are to assemble at a pre-designated site, not closer than 50 ft. from the building.
- ◆ Assess extent of fire, possibilities for the fire to spread, and alternatives for extinguishing the fire.
- ◆ If it appears the fire can be safely fought with available firefighting devices, attempt to contain or extinguish the fire, until the Fire Department arrives.
- ◆ If a fire extinguisher is to be used, the PASS method will be utilized: Pull pin, Aim at base of fire, Squeeze trigger, and Sweep from side to side.
- ◆ Upon arrival of Fire Department personnel, maintain access to the facility by having gates opened. Alert/direct fire department to the fire and provide assistance.
- ◆ Do not attempt to fight a fire alone.
- ◆ Do not attempt to fight a fire without adequate personal protective equipment.
- ◆ Be familiar with the uses and limitations of firefighting equipment.

30 TAC §326.75(g), Access Control

Public Access Control 326.75(g)(1)

Public access to the loading/unloading areas of the facility is controlled by a perimeter fence consisting of four-foot barbed wire fence and a six-foot chain-link fence which is appropriate to protect human health and safety and the environment. Uncontrolled access to the facility, to include administrative offices, storage and processing areas shall be prevented at all times. An attendant shall be on-site during operating hours.

30 TAC §326.75(g)(2), Access Roads, Vehicle Parking, and Safety Measures

Facility Access Road 326.75(g)(2)

The facility access road is a two-lane, paved road designed for the expected traffic flow. There are adequate turning radii for all transport vehicles that will utilize the facility. Parking will be provided for transport trucks/trailers, employees and visitors.

The all-weather surfaces within the facility will be maintained to control dust and mud. Incoming waste will be off loaded directly into the facility building or into another transfer vehicle/trailer, therefore safety bumpers will not be provided.

The on-site area to be used by transport vehicles is paved. In the event there is a problem related to windblown dust, water will be used to control windblown dust. Within the facility, a standard garden hose connected to an on-site water source may be sufficient to apply water.

The tracking of mud onto public roadways from the processing facility is not anticipated due to the access roads and on-site road being paved. All-weather surfaces will be maintained to prevent/minimize the tracking of dust and mud onto public access roads.

All on-site and other access roadways will be maintained on a regular basis to minimize depressions, ruts, and potholes, as appropriate. Off-site access roads and their repairs are under the jurisdiction of Atascosa County and TXDOT.

Perimeter Access 326.75(g)(3)

Access to the registration boundary will be controlled by a perimeter fence with lockable gates. The perimeter fence will consist of a four-foot barbed wire fence or a six-foot chain-link fence or equivalent. Waste storage will be located within the perimeter fencing and/or processing building but will not be located within the buffer zone or any easements or right-of-way crossing the facility.

30 TAC §326.75(h), Unloading of Waste

Unloading of Waste 326.75(h)

The unloading of waste will be confined to as small an area as practical. A trained employee will monitor all incoming loads of waste to help prevent the receipt of prohibited waste and to direct the unloading of waste. If needed, additional trained staff will be available to direct and observe the unloading of waste. All authorized waste will be unloaded within the

processing area or dock area (See Facility Layout Plan). Appropriate signs will be used to indicate where vehicles are to unload. The use of forced access lanes or other means will be used in conjunction with signs for the prevention of indiscriminate dumping. The owner or operator is not required to accept any waste which they determine will cause or may cause problems in maintaining full and continuous compliance with all regulations.

The unloading of waste in unauthorized areas is prohibited. The facility will ensure that any waste deposited in an unauthorized area will be promptly removed and disposed of properly. Vehicles will only be allowed to unload material within the processing area and dock area or transfer the material to another transport vehicle/trailer. The facility will maintain records of material that is removed from the site.

The unloading of prohibited wastes will not be allowed. Only those waste streams specified in this registration application will be unloaded. Trained employees shall observe each load and require unauthorized material to be removed by the transporter, and/or have the unauthorized material removed by on-site personnel or otherwise properly managed by the facility. Trained employees may also assess appropriate surcharges for the detection and/or management of unauthorized material. Any prohibited waste discovered prior to unloading will be rejected and returned promptly to the transporter or generator of the waste.

In the event unauthorized materials are unloaded at the site, the material will be rejected and the transporter will be required to immediately remove the waste along with any contaminated materials from the facility. Any undisclosed prohibited waste discovered after unloading will be isolated until the material can be adequately identified. All equipment operators, clerks, and the facility manager have the authority and responsibility to reject loads and require the transporter to immediately remove rejected waste streams and contaminated materials from the site. The facility will maintain records in the site operating records of unauthorized material rejected or removed from the facility.

30 TAC §326.75(i)(3), Recording of Applicable Alternative Hours (if used)

Terrabella Environmental Services Inc does not anticipate the need for alternative operating hours for special occasions, special purpose events, holidays, or other special occurrences. If such an event does occur, the facility shall record the dates, times, and duration when any alternative operating hours in the site operating record.

30 TAC §326.75(j), Signs at Facility Entrances

A sign will be conspicuously displayed at the entrance of the facility. The facility sign will measure a minimum of four feet by four feet with letters at least three inches in height stating the following:

- Facility name;
- Type of facility;
- Hours and days of operation;
- Registration number; and
- Facility rules if applicable.

Additional information may be added to the sign per the discretion of facility management. Additional signs, regarding such site rules as speed limits and exclusion of regulated hazardous and unacceptable waste streams, may also be posted. The posting of erroneous or misleading information shall constitute a violation of 30 TAC Chapter 326.

30 TAC §326.75(k), Control of Windblown Material and Litter

Windblown litter is not anticipated at the waste processing facility. Medical waste, or other approved waste, transported to the site must be packaged/containerized according to state/federal requirements. Medical waste, or other approved waste, will be unloaded within the building or loading/unloading dock area. In the event of heavy winds, the overhead doors of the building may be closed to minimize the potential for windblown waste and/or litter.

When windblown litter is found, it will be picked up at least once per day on the days the facility is in operation to minimize unhealthy, unsafe, or unsightly conditions. Additional fencing or screening will not be required due to the nature of the incoming waste.

A portable fence, perimeter fencing, or other suitable practice may be employed to confine windblown material resulting from operations, as needed.

Waste falling from vehicles is not anticipated due to the strict packaging requirements for Special Waste From Health Care Related Facilities (SWFHCRF). In the event SWFHCRF falls from a vehicle, the waste will be picked up immediately and re-packaged in accordance with applicable state/federal rules.

The owner or operator will take steps to ensure vehicles hauling waste to the facility are enclosed and properly secured in order to prevent the escape of waste. The transportation of medical wastes is regulated by the U.S. Department of Transportation as well as the TCEQ. In accordance with 30 TAC 330.1201, TCEQ requires all registered transporters to transport untreated waste in a manner that would not cause harm to human health and the environment.

30 TAC §326.75(l), Facility Access Roads

Paved or gravel surfaces are provided within the facility for wet weather operations. All-weather surfaces will be maintained to prevent the tracking of mud and debris onto public roadways. All weather roads including the main entrance road and main access road will be designated for wet weather operation. The tracking of mud and trash onto public roadways from the facility is not anticipated due to the location of the facility.

Dust from on-site and other access roadways is not anticipated as on-site and other access roads to the facility are paved.

All on-site roadways will be maintained on a regular basis to minimize depressions, ruts, and potholes, as appropriate. Off-site access roads and their repairs are under the jurisdiction of TxDOT.

30 TAC §326.75(m), Noise Pollution and Visual Screening

The transfer and/or unloading of waste will occur inside the building loading area. Steps will be taken to minimize the amount of noise pollution generated from the site. While the majority of activity will take place within the covered loading dock, steps to reduce noise pollution outside of the building may include, but are not limited, to turning waste transport vehicles off during loading/unloading.

30 TAC §326.75(n), Overloading and Breakdown

The design capacity of the facility, 50 tons of waste in a 24 hour period, will never be exceeded during operation. If the facility receives waste quantities that cannot be processed within a time frame to prevent the creation of odors, insect breeding or vector harboring, additional waste will not be received until the problem conditions are abated. Alternately, incoming waste may be transported to another registered Processing Facility.

If a significant work stoppage should occur at the facility due to mechanical breakdown or other causes, additional processing units may be brought in to treat waste. Any additional units brought in to treat waste will be the same as existing processing units. In the event the facility cannot bring in an additional processing unit, the facility will restrict the receiving of waste accordingly. Under such circumstances, incoming waste will be diverted or transported to an approved processing facility.

If the work stoppage is anticipated to last long enough to create objectionable odors, insect breeding, or harborage of vectors, the accumulated solid waste will be transferred to a refrigeration unit or removed from the site and taken to an approved processing facility. Cleaning and maintenance will be performed as recommended by the manufacturer and as necessary so the equipment efficiency can be adequately maintained. Additional transport vehicles or refrigeration units will be brought in as needed. Additional transport units will meet the requirements of 30 TAC Chapter 326 relating to Transporters of Untreated Medical Waste.

30 TAC §326.75(o), Sanitation

All working surfaces that come in contact with wastes shall be washed down on a weekly basis at the completion of processing. The facility will be swept daily and washed down at least two times per week when the facility is operating on a continuous basis.

In the event of a spill, the waste will be collected and packaged in accordance with 30 TAC 326.19, United States Department of Transportation 49 CFR 178, and Occupational Safety and Health Administration 29 CFR 1910.

Working surfaces contacted by untreated medical waste will be sanitized with a commercial grade disinfectant. The mixture will be absorbed with paper towels, cloth or equivalent material and managed as untreated medical waste.

Wash waters will not be allowed to accumulate onsite to prevent the creation of odors or an attraction of vectors. All wash waters shall be collected and disposed of in an authorized manner.

Potable water and sanitary facilities are provided for all employees and visitors. The sewer system is provided by and maintained by the City of Pleasanton.

30 TAC §326.75(p), Ventilation and Air Pollution Control

This facility is subject to TCEQ jurisdiction concerning air pollution control. Air emissions from this facility will not cause or contribute to a condition of air pollution as defined in the Texas Clean Air Act.

The facility and constructed air pollution abatement devices will obtain authorization, as applicable, from the Air Permits Division.

Untreated medical waste will be received in closed containers. In the event untreated medical waste will be held longer than 72 hours after receipt, the waste will be refrigerated to control odors.

The facility will be designed and operated to provide adequate ventilation for odor control and employee safety. The facility does not anticipate an odor issue due to the short holding time of medical waste. In the event an odor problem does arise, the overhead doors may be closed, as necessary, to prevent nuisance odors from passing beyond the facility boundary. The control of odors may also be accomplished through commercially available odor masking sprays or through the refrigeration of untreated waste. If utilized at the facility, all air pollution emission capture and abatement equipment will be properly maintained and operated. Cleaning and maintenance of the abatement equipment will be performed as recommended by the manufacturer and as necessary so the equipment efficiency can be adequately maintained.

Cleaning and maintenance of mobile waste processing units, if utilized, will be performed each day the unit is in operation to ensure the unit is in working condition to reduce odors.

The reporting of emissions events will be made in accordance with 30 TAC 101.201 relating to Emissions Event Reporting and Recordkeeping Requirements. The reporting of scheduled maintenance will be made in accordance with 30 TAC 101.211 relating to scheduled maintenance, startup, and shutdown reporting and recordkeeping requirements.

Any ponded water at the facility will be controlled to avoid it from becoming a nuisance. In the event objectionable odors do occur, appropriate measures shall be taken to alleviate the condition.

30 TAC §326.75(q), Health and Safety

I. Introduction

This plan has been prepared to provide guidance for a safe work environment and a guideline in the event an emergency situation arises during the normal course of work for Terrabella Environmental Services Inc employees while working at the Pleasanton facility. All employees will be instructed in safe operating procedures and emergency preparedness.

II. Training

Each employee will be instructed by management as to proper procedures for performing the specific job for which they were hired during the first thirty (30) days of employment. The instruction will include a tour of the entire facility to familiarize themselves with the location of the following:

- a. Fire extinguishers,
- b. Telephones,
- c. Emergency telephone numbers, and
- d. Locations of safety equipment.

III. Safety and Awareness Meetings

Management will conduct monthly safety meetings to review safety procedures and refresh employees on the importance of safety in the workplace.

IV. Basic Personal Protective Equipment

Personal protective equipment may include the following:

- a. Safety glasses,
- b. Face mask,
- c. Gloves (latex and kevlar),
- d. Coveralls, and
- e. Non-skid footwear.

V. Basic Elements

Below is a list of proper safety procedures to be followed during daily operations.

- a. Shift Supervisor
 - i. Watch for trucks entering the facility.
 - ii. Wear protective equipment while working with waste.
 - iii. Inspect loads as outlined in the Site Operating Plan.
 - iv. Lock facility gates after closing hours.
 - v. Manage receiving floor.
 - vi. Use common sense.
- b. Facility Supervisor / Facility Manager
 - i. Watch for trucks unloading.
 - ii. Wear protective equipment while working with waste.
 - iii. Be cautious around operating equipment.
 - iv. Lock facility gates after closing hours.
 - v. Use common sense.
 - vi. Check fire extinguishers at least annually to ensure proper working order.

VI. Emergency Procedures

In the event of an emergency, it may be necessary to seek outside assistance from other agencies. Primary emergency phone numbers are listed below:

- Fire 911
- Police 911
- Ambulance 911

General procedures to be followed in the event of an emergency are as follows:

- An employee detecting an emergency should notify 911 and then the Terrabella Environmental Services Inc emergency coordinator, or designee. Until the emergency coordinator or designee arrives, the employee should direct site personnel and visitors to evacuate if there is imminent risk to their personal safety.
- The employee may administer emergency first aid, if qualified, if someone has been injured. If the injury is moderate, arrangements to transport the injured person to the nearest hospital will be made. If the injury is severe,

emergency personnel at 911 will be contacted. Emergency care will be administered until the ambulance arrives.

- In the event of a fire or explosion, the employee detecting the fire or explosion will notify 911 and the Terrabella Environmental Services Inc emergency coordinator, or designee, describing the location and extent of the fire or explosion and any need for immediate assistance for first aid or fire containment. The employee must be prepared to assist the emergency coordinator and/or response team.

30 TAC 326.75(r), Disposal of Treated Medical Waste

Medical wastes that have been treated in accordance with the provisions of 25 TAC 1.136 may be managed as routine municipal solid waste unless otherwise specified in the rules.

Below are the requirements for the disposal of specific types of medical waste. These specific waste streams are typically found in waste from healthcare related facilities. This facility may only accept those waste streams that are approved in the registration.

- Treated microbiological waste, blood, blood products, body fluids, laboratory specimens of blood and tissue, and animal bedding may be disposed of in a permitted landfill. Any markings that identify the waste as a medical waste shall be covered with a label that identifies the waste as treated medical waste. The identification of the waste as treated may be accomplished by the use of color coded, disposable containers for the treated waste or by a label that states that the contents of the disposable container have been treated in accordance with the provisions of 25 TAC § 1.136.
- Treated carcasses and body parts of animals designated as a medical waste may, after treatment, be disposed of in a permitted landfill in Texas Commission on Environmental Quality Page 26 Chapter 326 - Medical Waste Management accordance with Chapter 330 of this title. The collection and transportation of these wastes shall conform to the applicable local ordinance or rule, if such ordinance or rule is more stringent than this subsection.
- Treated recognizable human body parts, tissues, fetuses, organs, and the products of human abortions, spontaneous or induced, shall not be disposed of in a municipal solid waste landfill. These items shall be disposed of in accordance with the provisions of 25 TAC 136(a)(4).
- Sharps treated and containerized with one of the approved methods as described under 25 TAC §1.136(a)(5) shall be disposed of in a permitted landfill in accordance with Chapter 330 of this title. Unused sharps shall be disposed of as treated sharps.

30 TAC §326.71(n), Financial Assurance

A copy of the documentation required to demonstrate financial assurance as specified in Chapter 37, Subchapter R of this title (relating to Financial Assurance for Municipal Solid Waste Facilities) shall be submitted 60 days prior to the initial receipt of waste. Continuous financial assurance coverage for closure must be provided until all requirements of the final closure plan have been completed and the facility is determined to be closed in writing by the executive director.

30 TAC §326.71(I)(1), Public Notice

No later than 90 days prior to the initiation of final facility closure, Terrabella Environmental Services Inc, through a public notice in the newspaper(s) of largest circulation in the vicinity of the facility, will provide public notice for final facility closure. This notice will provide the name, address, and physical location of the facility, the registration number, and the last date of intended receipt of waste. Terrabella Environmental Services Inc will also make available an adequate number of copies of the approved final closure plans for public access and review.

Terrabella Environmental Services Inc will also provide written notification to the executive director of the intent to close the facility and place the notice of intent in the site operating record.

30 TAC §326.71(I)(2), Signage

Terrabella Environmental Services Inc shall post a minimum of one sign at the main entrance and all other frequently used points of access for the facility notifying all persons who may utilize the facility of the date of closing for the entire facility and the prohibition against further receipt of waste materials after the stated date. Further, suitable barriers shall be installed at all gates or access points to adequately prevent the unauthorized dumping of solid waste at the closed facility.

30 TAC §326.71(I)(3), Required Submittals to Executive Director

Within ten days after completion of final closure activities of the facility, the owner and operator shall submit to the executive director by registered mail:

- A certification, signed by an independent licensed professional engineer, verifying that final facility closure has been completed in accordance with the approved closure plan. The submittal to the executive director shall include all applicable documentation necessary for certification of final facility closure; and
- A request for voluntary revocation of the facility registration.

Section 6—Applicant Certification and Signature

The applicant is the person or entity who would be the owner of the facility and in whose name the registration would be issued. If the application is signed by an authorized representative for the applicant, the applicant must complete the delegation of signature authority.

Certification by Applicant or Authorized Signatory [30 TAC §305.44]

I 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.

Name of applicant, or other person authorized to sign: Michael D. Carr

Title of person signing: President

Signature: [Signature]

Date: 25 MAR 20

Notarization

SUBSCRIBED AND SWORN to before me by the said Michael D Carr

On this 25 day of March, 2020.

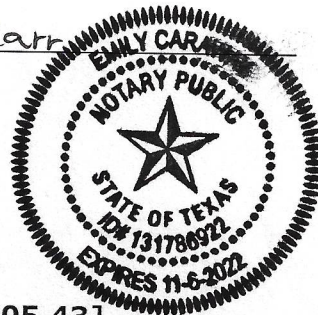
My commission expires on the 6 day of November, 2022.

Emily Caraway

Notary Public in and for

Atascosa

County, Texas



Applicant's Delegation of Signature Authority [30 TAC §305.43]

I hereby delegate the person named below as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and appear for me at any hearing or before the Commission 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.

Name of applicant's representative: N/A

Name of person who is the applicant, or officer or official representing corporation or public agency that is the applicant: Michael D. Carr

Signature: [Signature]

Date: 25 MAR 20

Notarization

SUBSCRIBED AND SWORN to before me by the said Michael D Carr

On this 25 day of March, 2020.

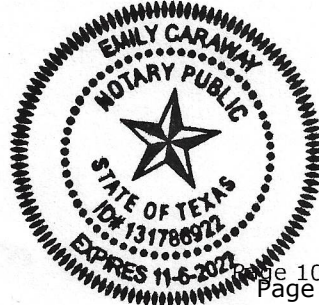
My commission expires on the 6 day of November, 2022.

Emily Caraway

Notary Public in and for

Atascosa

County, Texas



Section 7—Property Owner Affidavit

Affidavit [30 TAC §326.71(b)]

This section must be completed by the owner of the property on which the facility would be located.

I am the owner of the land on which the proposed facility would be located. I acknowledge that the State of Texas may hold me either jointly or severally responsible for the operation, maintenance, and closure of the facility. I further acknowledge that the facility owner or operator and the State of Texas shall have access to the property during the active life and after closure for the purpose of inspection and maintenance.

Property owner name: Aaron T. Campbell Terra Bella Environmental
Signature: [Signature] Date: 3/25/20

Notarization

SUBSCRIBED AND SWORN to before me by the said Aaron T Campbell

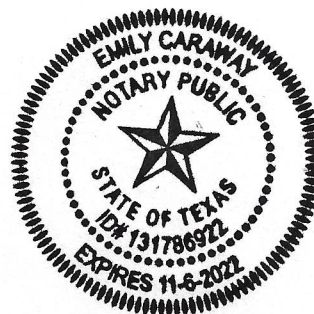
On this 25 day of March, 2020

My commission expires on the 6 day of November 2022

[Signature]

Notary Public in and for

Atascosa County, Texas



Attachments

Table Att-1. Required Attachments

Attachments	Attachment No.
General Location Map	1
Facility Access Map	2
Facility Layout Map	2
Land Use Map	3
Land Ownership Map	4
Land Ownership List	5
Land Ownership Hard Copy and Electronic Mailing List or Mailing Labels	6
Metes and Bounds Drawing and Description	7
Copy of Authorization to Discharge Wastewater to a Treatment Facility	8
Process Flow Diagrams and Narrative	9
Procedures for Operation and Testing of Treatment Equipment, if applicable	10
Procedures for Preparation of any Chemical used in Treatment, if applicable	11
Verification of Legal Status	12
Texas Department of Transportation Coordination Letters	13
Entity Exercising Maintenance Responsibility of Public Roadway, if applicable	14
FEMA Map	15
<input type="checkbox"/> Facility Design Demonstration for Flood Management, or <input type="checkbox"/> Conditional Letter of Map Amendment from FEMA, if applicable	16

Wetland Documentation, if applicable	17
Council of Governments Review Request Coordination Letters	18

Table Att-2. Additional Attachments; check all that apply.

Attachments	Attachment No.
<input checked="" type="checkbox"/> TCEQ Core Data Form(s)	19
<input checked="" type="checkbox"/> Fee Receipt or copy of check	20
<input type="checkbox"/> Published Zoning Map	21
<input type="checkbox"/> Delegation of Signatory Authority	22
<input checked="" type="checkbox"/> Manufacturer Specifications for Waste Management Units	23
<input type="checkbox"/> Additional Storage and Processing Unit Closure Cost Items	24
<input type="checkbox"/> Confidential Documents	25

ATTACHMENT 1

GENERAL LOCATION MAP




3/31/2020
Selling

REV	DATE	DESCRIPTION	DR BY	APP BY

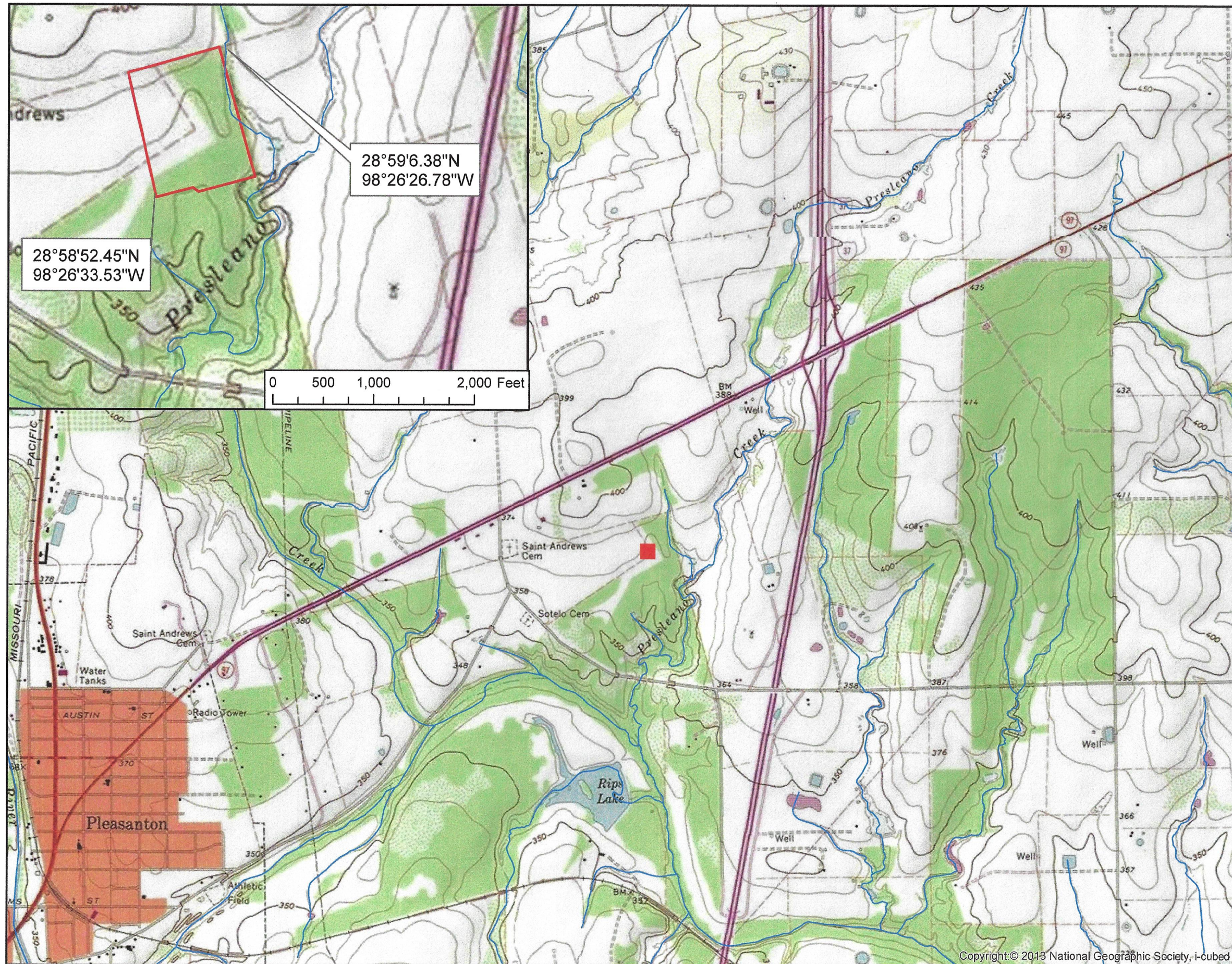
PREPARED BY **Q&A Diversified, LLC**
Engineering and Consulting
 San Antonio, TX 78251
 TX Registered Engineering Firm 15923
 210-896-8711
www.QnADiversified.com
Building a practice focused on trust

PROJECT
Terrabella Environmental Services
MSW Application

433 Zander Lane
Pleasanton, TX 78604
RN 110896578


TERRABELLA
Environmental
Services

SHEET TITLE	
General Location	
DES BY	MAP SOURCE
DR BY	TXDOT Roadways: County
CHK BY CH	PURPOSE
APP BY HQ	FOR PERMITTING PURPOSES ONLY
DATE MARCH 2020	FIGURE Attachment 1



0 1,000 2,000 4,000 Feet

Center of Property
28°58'56.33"N
98°26'32.30"W

— Facility

N

3/31/2020

REV	DATE	DESCRIPTION	DR BY	APP BY

PREPARED BY Q&A Diversified, LLC
Engineering and Consulting
San Antonio, TX 78251
TX Registered Engineering Firm 15923
210-896-8711
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433 Zander Lane
Pleasanton, TX 78604
RN 110896578

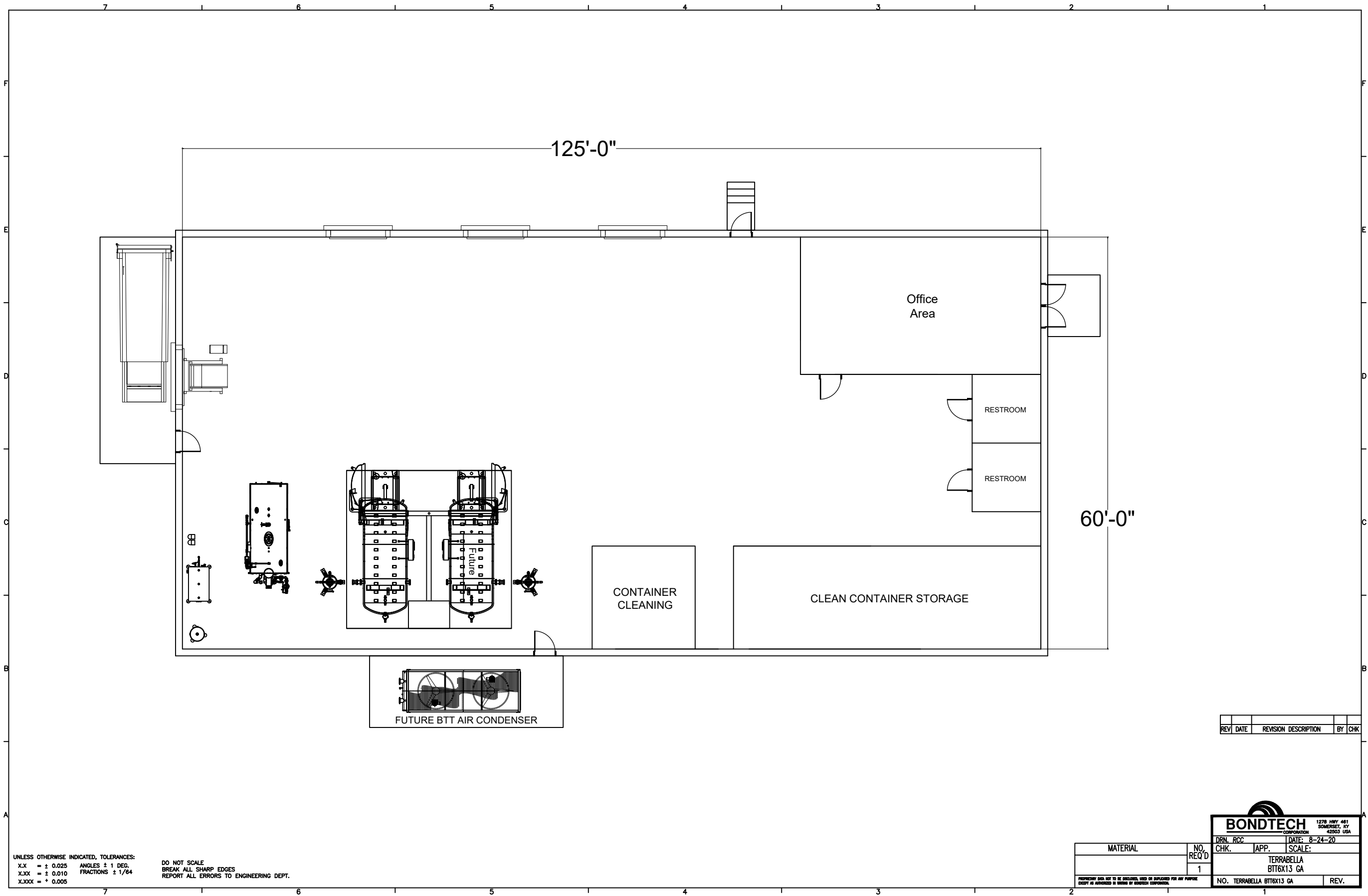
SHEET TITLE
Topographic Map

DES BY	MAP SOURCE
DR BY	1:24,000 USGS Topo Maps Service & NHD
CHK BY CH	PURPOSE
APP BY HQ	FOR PERMITTING PURPOSES ONLY
DATE	FIGURE
MARCH 2020	Attachment 1

ATTACHMENT 2

FACILITY ACCESS MAP

FACILITY LAYOUT MAP



UNLESS OTHERWISE INDICATED, TOLERANCES:
X.X = ± 0.025 ANGLES ± 1 DEG.
X.XX = ± 0.010 FRACTIONS ± 1/64
X.XXX = ± 0.005

DO NOT SCALE
BREAK ALL SHARP EDGES
REPORT ALL ERRORS TO ENGINEERING DEPT.

REV	DATE	REVISION DESCRIPTION	BY	CHK

BONDTECH

1276 HWY 461
SOMERSET, NY
42503 USA

DRN. RCC
CHK. APP. SCALE:

DATE: 8-24-20

NO. REQ'D

1

TERRABELLA

BT6X13 GA

NO. TERRABELLA BT6X13 GA

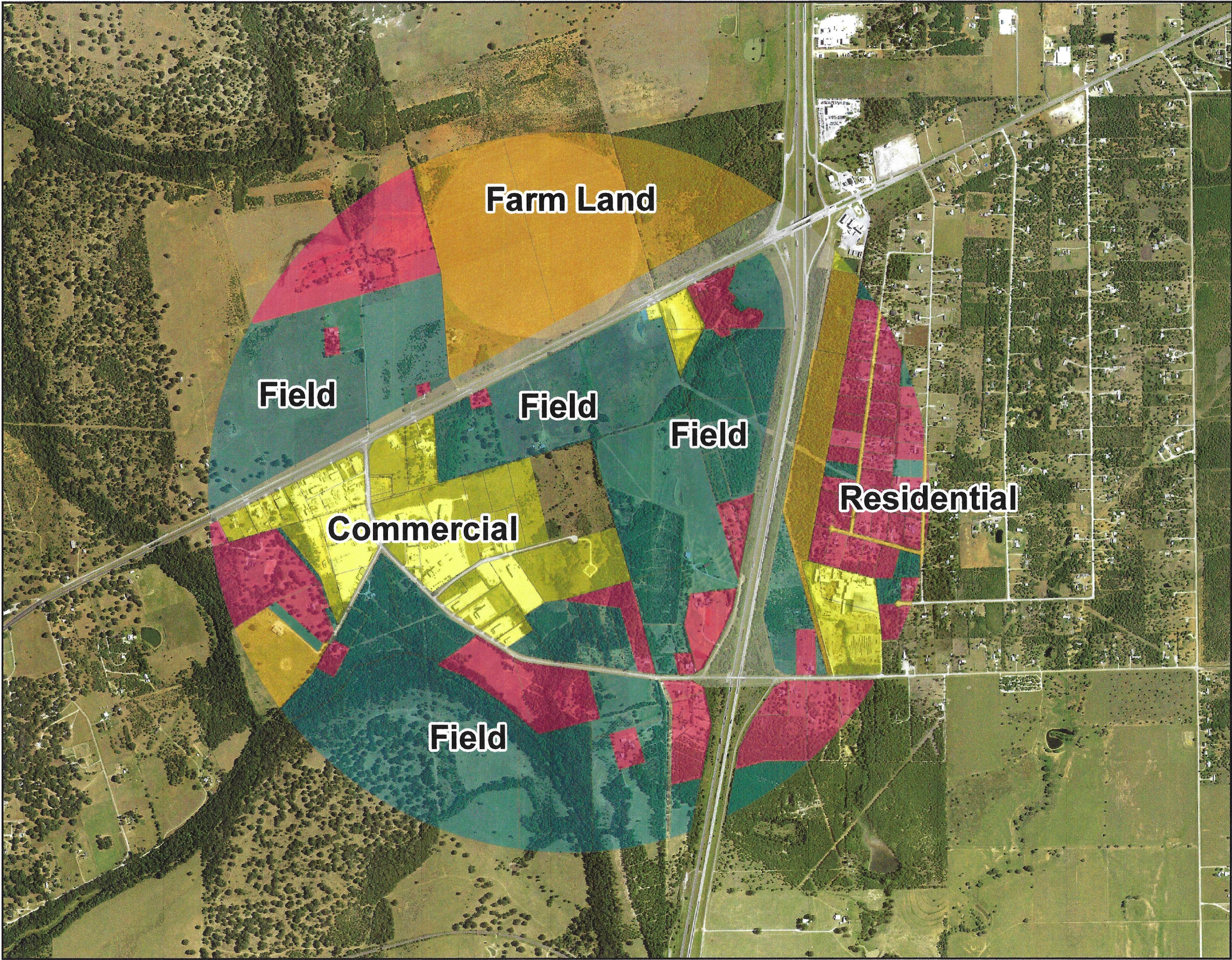
REV.

PROPERTY DATA NOT TO BE DISCLOSED, USED OR REPRODUCED FOR ANY PURPOSE
EXCEPT AS AUTHORIZED IN WRITING BY BONDTECH CORPORATION.



ATTACHMENT 3

LAND USE MAP



06001,2002,400 Feet

Center of Property
28°58'56.33"N
98°26'32.30"W

Commercial

Farm Land

Field

ROW/Road


Residential

STATE OF TEXAS
HILDA R. QUINONES
111655
PROFESSIONAL ENGINEER

3/31/2020
[Signature]

REV	DATE	DESCRIPTION	DR BY	APP BY

PREPARED BY




Q&A
Diversified LLC

Q&A Diversified, LLC
Engineering and Consulting
San Antonio, TX 78251
TX Registered Engineering Firm 15923
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PROJECT

Terrabella Environmental Services
MSW Application



TERRABELLA
Environmental
Services

433 Zander Lane
Pleasanton, TX 78604
RN 110896578

SHEET TITLE

Land Use

DES BY		MAP SOURCE
DR BY		Atascosa CAD, USGS NAIP 2018
CHK BY	CH	PURPOSE
APP BY	HQ	FOR PERMITTING PURPOSES ONLY
DATE		FIGURE
MARCH 2020		Attachment 3

ATTACHMENT 4

LAND OWNERSHIP MAP



0 250 500 1,000 Feet

Center of Property
28°58'56.33"N
98°26'32.30"W



Property Line



1/4 mile



Parcels within 1/4 mile



3/31/2020

[Signature]

REV	DATE	DESCRIPTION	DR BY	APP BY

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PROJECT
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MSW Application
433 Zander Lane
Pleasanton, TX 78604
RN 110896578



SHEET TITLE

Land Owners

DES BY		MAP SOURCE
DR BY		1:24,000 USGS Topo Maps Service & NHD
CHK BY	CH	PURPOSE
APP BY	HQ	FOR PERMITTING PURPOSES ONLY
DATE	FIGURE	
MARCH 2020	Attachment 4	

ATTACHMENT 5

LAND OWNERSHIP LIST

Land Ownership List

Landowners Cross-Referenced to Landowners Map

The persons identified below would be considered as affected persons.

Property ID	Owner Name	Address 1	City	State	Zip
16053	ATASCOSA COUNTY	1 COURTHOUSE CIRCLE DR STE 101	JOURDANTON	TX	78026
16055	DICARO GREG	PO BOX 367	PLEASANTON	TX	78064
16298	STANUSH 4 FARMS, LP	4123 DESERT VIEW	SAN ANTONIO	TX	78217
16299	STANUSH 4 FARMS, LP	4123 DESERT VIEW	SAN ANTONIO	TX	78217
18004	FIGUEROA PEDRO JR & ROSA	345 SCOGIN LN	PLEASANTON	TX	78064
18006	FIGUEROA PEDRO JR & ROSA	345 SCOGIN LN	PLEASANTON	TX	78064
79224	MOSS GERALD R & JUDY Y	25274 CAMINO DE TIERRA	DESCANSO	CA	91916
79226	ENTERPRISE CRUDE OIL LLC ATTN: ADVALOREM TAX	PO BOX 4018	HOUSTON	TX	77210
79377	SOUTHCOAST HOLDINGS LLC	PO BOX 80673	LAFAYETTE	LA	70598
163513	JOHNSON PERMIAN INTERESTS LTD	PO BOX 7946	HOUSTON	TX	77270
176629	GULF COAST COMPANIES INC	PO BOX 1810	ABBEVILLE	LA	70511
176630	GULF COAST COMPANIES INC	PO BOX 1810	ABBEVILLE	LA	70511
176749	WYTEX PROPERTIES LLC	25528 GENESEE TRAIL RD	GOLDEN	CO	80401
176750	HOLLISTER JANET & HOLLISTER LORI	14 DRAKES COVE RD	LARKSPUR	CA	94939
176751	LUCKY'S INVESTMENTS LLC	24005 OAK BENO DR	LUTHER	OK	73020
176752	WYTEX PROPERTIES LLC	25528 GENESEE TRAIL RD	GOLDEN	CO	80401
176754	BX3 PROPERTIES LLC	PO BOX 162145	FT WORTH	TX	76161
181988	REGANN RESOURCES LLC	P. O. BOX W	BASTROP	TX	78602
182005	CERNY REAL ESTATE LLC REESE INTERESTS LLC	2825 WILCREST SUITE 300	HOUSTON	TX	77042
182185	REESE INTERESTS LLC	2825 WILCREST SUITE 300	HOUSTON	TX	77042
189087	CALZADA JOSEFINA	1155 CORGEY RD	PLEASANTON	TX	78064
189881	IZAGUIRRE OCTAVIO & ANAMARIA B	2220 TERRELL AVE	JOURDANTON	TX	78026
189882	TORRES AUGUSTIN BRAVO	5023 ARIZONA BAY	SAN ANTONIO	TX	78244
189883	ORTEGA JOSE TOBIAS LARA UNDEL	826 WINSHIP RD	PLEASANTON	TX	78064
189884	LOPEZ JUAN RAMON CENTENO	419 BRADLEY ST	SAN ANTONIO	TX	78211
189885	SANTIAGO CATARINO CERVANTES	25390 WHISPERING WIND DR	SAN ANTONIO	TX	78264
197478	HUNTING TITAN INC	PO BOX 2316	PAMPA	TX	79066
200569	ACCEL LOGISTICS INC	134 FM 2738	ALVARADO	TX	76009

Mineral Interest Ownership Under The Facility

Based on a tax appraisal record search (Tax Year: 2019 Property ID 16055), no separate mineral interest ownership is apparent at this property.

Facility Easement Holders

Owner Name	Address 1	City	State	Zip
ATASCOSA COUNTY	1 COURTHOUSE CIRCLE DR STE 101	JOURDANTON	TX	78026

ATTACHMENT 6

**LAND OWNERSHIP HARD COPY AND ELECTRONIC MAILING
LIST OR MAILING LABELS**

STANUSH 4 FARMS LP
4123 DESERT VIEW
SAN ANTONIO TX 78217

ATASCOSA COUNTY
1 COURTHOUSE CIRCLE DR STE 101
JOURDANTON TX 78026

FIGUEROA PEDRO JR ROSA
345 SCOGIN LN
PLEASANTON TX 78064

FIGUEROA PEDRO JR ROSA
345 SCOGIN LN
PLEASANTON TX 78064

STANUSH 4 FARMS LP
4123 DESERT VIEW
SAN ANTONIO TX 78217

MOSS GERALD R JUDY Y
25274 CAMINO DE TIERRA
DESCANSO CA 91916

ENTERPRISE CRUDE OIL LLC
ATTN ADVALOREM TAX
PO BOX 4018
HOUSTON TX 77210

SOUTHCOAST HOLDINGS LLC
PO BOX 80673
LAFAYETTE LA 70598

JOHNSON PERMIAN INTERESTS LTD
PO BOX 7946
HOUSTON TX 77270

GULF COAST COMPANIES INC
PO BOX 1810
ABBEVILLE LA 70511

GULF COAST COMPANIES INC
PO BOX 1810
ABBEVILLE LA 70511

WYTEX PROPERTIES LLC
25528 GENESEE TRAIL RD
GOLDEN CO 80401

WYTEX PROPERTIES LLC
25528 GENESEE TRAIL RD
GOLDEN CO 80401

BX3 PROPERTIES LLC
PO BOX 162145
FT WORTH TX 76161

LUCKYS INVESTMENTS LLC
24005 OAK BENO DR
LUTHER OK 73020

HOLLISTER JANET
HOLLISTER LORI
14 DRAKES COVE RD
LARKSPUR CA 94939

CERNY REAL ESTATE LLC
REESE INTERESTS LLC
2825 WILCREST SUITE 300
HOUSTON TX 77042

REGANN RESOURCES LLC
PO BOX W
BASTROP TX 78602

REESE INTERESTS LLC
2825 WILCREST SUITE 300
HOUSTON TX 77042

CALZADA JOSEFINA
1155 CORGEY RD
PLEASANTON TX 78064

IZAGUIRRE OCTAVIO ANAMARIA B
2220 TERRELL AVE
JOURDANTON TX 78026

TORRES AUGUSTIN BRAVO
5023 ARIZONA BAY
SAN ANTONIO TX 78244

ORTEGA JOSE TOBIAS LARA
UNDEL
826 WINSHIP RD
PLEASANTON TX 78064

LOPEZ JUAN RAMON CENTENO
419 BRADLEY ST
SAN ANTONIO TX 78211

SANTIAGO CATARINO CERVANTES
25390 WHISPERING WIND DR
SAN ANTONIO TX 78264

HUNTING TITAN INC
PO BOX 2316
PAMPA TX 79066

ACCEL LOGISTICS INC
134 FM 2738
ALVARADO TX 76009

DICARO GREG
PO BOX 367
PLEASANTON TX 78064

ATTACHMENT 7

METES AND BOUNDS DRAWING AND DESCRIPTION

LEGEND

IRF - STEEL ROD FOUND
IRS - 1/2" REBAR SET
WITH "POLLOK
& SONS" CAP
CP - CORNER POST
DD"MM"SS" DIST.' - FIELD
(DD"MM"SS" DIST.) - RECORD
— x — BARBED WIRE FENCE
⌚ POWER/UTILITY POLE
Ⓢ WATER WELL/WATER METER
(AS NOTED)
Ⓢ SEPTIC TANK
— o — CHAIN LINK FENCE
— || — WOOD PRIVACY FENCE

Y SOTELO SURVEY NO. 139
ABSTRACT NO. 822



SCALE 1" = 300'

STANUSH 4 FARMS, LP.
VOL. 158, PG. 166

AREA OF THE 100 YEAR FLOOD
PLAIN AS DELINEATED ON (FIRM)
FLOOD INSURANCE RATE MAP AND
(FEMA) FEDERAL EMERGENCY
MANAGEMENT AGENCY FOR THE
INCORPORATED AREAS OF
ATASCOSA COUNTY, TEXAS
COMMUNITY PANEL NUMBER
48013C0327C, DATED NOVEMBER
4TH. 2010.

PEDRO ET UX 492179
DOC. #


LOT 2B
SUBDIVISION
ZANDER LANE - INPCI PLAT
SHT. 322-A

TRACT 3
7.00 AC.

TRACT 2
7.01 AC.

TRACT 1
14.01 AC.

60' R.O.W.
ZANDER L
(NPC.) 292-B)

(R=75.00') R=75.00'
L=113.44'
Delta=86°39'48" 
Chrd.=N69°23'35"W
102.93'

HUNTING
TITAN, INC
DOC. # 179006

SURVEY PLAT AND PARTITION OF 28.03 ACRES OF LAND OUT OF THE Y. SOTELO SR. SURVEY NO. 139, ABSTRACT NO. 822, ATASCOSA COUNTY, TEXAS AND BEING THE LAND DESCRIBED IN A CONVEYANCE TO GREGORY S. DICARO IN THE DEED OF RECORD IN DOCUMENT NUMBER 139526 OF THE OFFICIAL PUBLIC RECORDS OF ATASCOSA COUNTY, TEXAS.

SURVEYOR NOTES:

- 1.) A METES AND BOUNDS DESCRIPTION ACCOMPANIES THIS PLAT.
- 2.) THE BASIS OF THE BEARING SYSTEM IS NAD83, TEXAS SOUTH CENTRAL.
- 3.) THIS PLAT WAS PREPARED FOR GREGORY DICARO. NO LICENSE HAS BEEN CREATED, EXPRESSED, OR IMPLIED TO COPY THIS SURVEY EXCEPT AS IS NECESSARY IN CONJUNCTION WITH THE ORIGINAL TRANSACTION.
- 4.) THIS SURVEY IS ONLY VALID WITH THE SURVEYOR'S ORIGINAL SIGNATURE IN GREEN INK. THE SURVEYOR ASSUMES NO LIABILITY FOR THIS SURVEY WITHOUT AN ORIGINAL SEAL AND SIGNATURE.
- 5.) IT IS THE OWNERS/SELLERS/BUYERS RESPONSIBILITY TO ENSURE THAT ANY TRANSACTION UTILIZING THIS SURVEY IS IN COMPLIANCE WITH THE ATASCOSA COUNTY DEVELOPMENT STANDARDS.

REFERENCE:

- DOC. # 135926 - DEED
DOC. # 141132 - WATER ESMNT.(BLNKT.)
DOC. # 142617 - ELEC. ESMNT. (BLNKT.)
DOC. # 142618 - ELEC. ESMNT. (BLNKT.)
DOC. # 142619 - ELEC. ESMNT. (BLNKT.)
DOC. # 142894 - TEL. ESMNT. (BLNKT.)



**POLLOK & SONS
SURVEYING, INC.**
FIRM NO. 10052700
FLORESVILLE, TEXAS
(830) 393-4770



STATE OF TEXAS
COUNTY OF ATASCOSA

I HEREBY CERTIFY THAT THE ABOVE PLAT REPRESENTS
AN ACTUAL SURVEY MADE ON THE GROUND BY PEOPLE
WORKING UNDER MY DIRECT SUPERVISION

THIS 25TH DAY OF SEPTEMBER, 2019 A.D.

LARRY J. POLLOK

R.P.L.S. NO.5186

© 2019 ALL RIGHTS RESERVED

JOB NO 19-0320

Attachments Page 17 of 69

STATE OF TEXAS
COUNTY OF ATASCOSA

FIELD NOTES FOR 14.01 ACRES OF LAND
TRACT 1

BEING 14.01 ACRES OF LAND OUT OF THE Y. SOTELO SR. SURVEY NO. 139, ABSTRACT NO. 822, ATASCOSA COUNTY, TEXAS AND BEING KNOWN AS TRACT 1 IN A SURVEY AND PARTITION OF THE LAND DESCRIBED IN A CONVEYANCE TO GREGORY S. DICARO IN THE DEED OF RECORD IN DOCUMENT NUMBER 139526 OF THE OFFICIAL PUBLIC RECORDS OF ATASCOSA COUNTY, TEXAS AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a found 5/8" pin with a "Rakowitz" cap on the northerly right-of-way of Zander Lane for the southeasterly corner of Lot 2B, Zander Lane Subdivision as shown on the plat of record on Sheet 322-A, NPC, New Plat Cabinet of Atascosa County, Texas and the southwesterly corner of the Dicaro land and of this tract;

THENCE North 12° 49' 33" West, with the common line of said Lot 2B, a distance of 600.30 feet to a set ½" rebar with a "Pollok & Sons" cap for the southwesterly corner of a 7.01 acre tract known as TRACT 2 in this survey and partition and the northwesterly corner of this tract;

THENCE North 74° 56' 00" East, into and across the Dicaro land and with the common line of said TRACT 2, a distance of 945.45 feet to a set ½" rebar with a "Pollok & Sons" cap on the westerly line of the Pedro Figueroa, Jr., et ux land as described in Document 192179 of the Official Public Records of Atascosa County, Texas for the southeasterly corner of said TRACT 2 and the northeasterly corner of this tract;

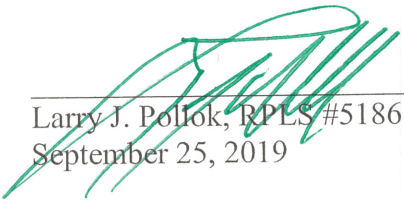
THENCE South 15° 32' 40" East, with the common line of said Figueroa land, a distance of 659.98 feet to a found 5/8" pin with a "Rakowitz" cap for the northeasterly corner of the Hunting Titan, Inc. land as described in Document 179006 of the Official Public Records of Atascosa County, Texas and the southeasterly corner of the Dicaro land and of this tract;

THENCE South 74° 55' 38" West, with the common line of said Hunting Titan, Inc. land, a distance of 554.13 feet to a found 5/8" pin with a "Rakowitz" cap on the easterly end of a cul-de-sac of the aforementioned Zander Lane for a corner of said Hunting Titan, Inc. land and of this tract;

THENCE with said Zander Lane right-of-way as follows:
With a curve to the left having a radius of 75.00 feet, a length of curve of 113.44 feet, and a chord bearing of North 69° 23' 35" West, a distance of 102.93 feet to a set ½" rebar with a "Pollok & Sons" cap;
South 74° 57' 27" West, a distance of 336.67 feet to the **POINT OF BEGINNING** and containing 14.01 acres of land as shown on a plat that accompanies this description.

The bearing system is based on NAD83, Texas South Central.

POLLOK & SONS SURVEYING, INC.
Firm No. 10052700


Larry J. Pollok, RPLS #5186
September 25, 2019



Refer. 19-0322

STATE OF TEXAS
COUNTY OF ATASCOSA

FIELD NOTES FOR 7.01 ACRES OF LAND
TRACT 2

BEING 7.01 ACRES OF LAND OUT OF THE Y. SOTELO SR. SURVEY NO. 139, ABSTRACT NO. 822, ATASCOSA COUNTY, TEXAS AND BEING KNOWN AS TRACT 2 IN A SURVEY AND PARTITION OF THE LAND DESCRIBED IN A CONVEYANCE TO GREGORY S. DICARO IN THE DEED OF RECORD IN DOCUMENT NUMBER 139526 OF THE OFFICIAL PUBLIC RECORDS OF ATASCOSA COUNTY, TEXAS AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a set ½” rebar with a “Pollok & Sons” cap on the easterly line of Lot 2B, Zander Lane Subdivision as shown on the plat of record on Sheet 322-A, NPC, New Plat Cabinet of Atascosa County, Texas for the northwesterly corner of a 14.01 acre tract known as TRACT 1 in this survey and partition and the southwesterly corner of this tract from which a found 5/8” pin with a “Rakowitz” cap on the northerly right-of-way of Zander Lane for the southeasterly corner of said Lot 2B and the southwesterly corner of the Dicaro land bears South 12° 49’ 33” East, a distance of 600.30 feet;

THENCE North 12° 49’ 33” West, with the common line of said Lot 2B, a distance of 325.65 feet to a set ½” rebar with a “Pollok & Sons” cap for the southwesterly corner of a 7.00 acre tract known as TRACT 3 in this survey and partition and the northwesterly corner of this tract;

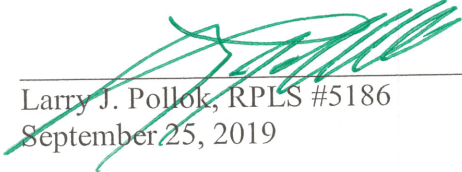
THENCE North 74° 56’ 00” East, into and across the Dicaro land and with the common line of said TRACT 3, a distance of 930.00 feet to a set ½” rebar with a “Pollok & Sons” cap on the westerly line of the Pedro Figueroa, Jr., et ux land as described in Document 192179 of the Official Public Records of Atascosa County, Texas for the southeasterly corner of said TRACT 3 and the northeasterly corner of this tract;

THENCE South 15° 32’ 40” East, with the common line of said Figueroa land, a distance of 325.41 feet to a set ½” rebar with a “Pollok & Sons” cap for the northeasterly corner of the aforementioned TRACT 1 and the southeasterly corner of this tract;

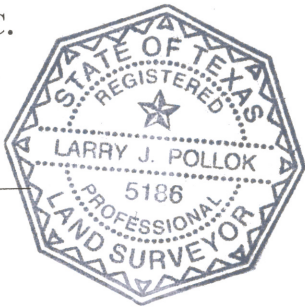
THENCE South 74° 56’ 00” West, into and across the Dicaro land and with the common line of said TRACT 1, a distance of 945.45 feet to the **POINT OF BEGINNING** and containing 7.01 acres of land as shown on a plat that accompanies this description.

The bearing system is based on NAD83, Texas South Central.

POLLOK & SONS SURVEYING, INC.
Firm No. 10052700



Larry J. Pollok, RPLS #5186
September 25, 2019



Refer. 19-0322

STATE OF TEXAS
COUNTY OF ATASCOSA

FIELD NOTES FOR A 60 FEET INGRESS/EGRESS EASEMENT

BEING A 60 FEET INGRESS/EGRESS EASEMENT OUT OF THE Y. SOTELO SR. SURVEY NO. 139, ABSTRACT NO. 822, ATASCOSA COUNTY, TEXAS AND BEING A PART OR PORTION OF THE LAND DESCRIBED IN A CONVEYANCE TO GREGORY S. DICARO IN THE DEED OF RECORD IN DOCUMENT NUMBER 139526 OF THE OFFICIAL PUBLIC RECORDS OF ATASCOSA COUNTY, TEXAS AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a found 5/8" pin with a "Rakowitz" cap on the northerly right-of-way of Zander Lane for the southeasterly corner of Lot 2B, Zander Lane Subdivision as shown on the plat of record on Sheet 322-A, NPC, New Plat Cabinet of Atascosa County, Texas and the southwesterly corner of the Dicaro land, a 14.01 acre tract known as TRACT 1 in this survey and partition, and of this easement;

THENCE North 12° 49' 33" West, with the common line of said Lot 2B, a distance of 925.95 feet to a set 1/2" rebar with a "Pollok & Sons" cap for the southwesterly corner of a 7.00 acre tract known as TRACT 3 in this survey and partition and the northwesterly corner of a 7.01 acre tract known as TRACT 2 in this survey and partition and of this easement;

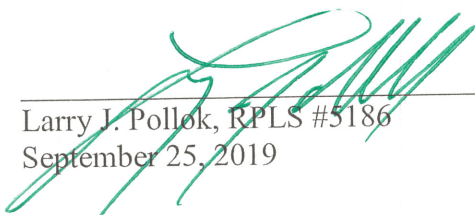
THENCE North 74° 56' 00" East, into the Dicaro land and with the common line of said TRACT 1 and TRACT 2, a distance of 60.05 feet to the northeasterly corner of this easement;

THENCE South 12° 49' 33" East, a distance of 925.98 feet to the aforementioned northerly right-of-way of Zander Lane for the southeasterly corner of this easement;

THENCE South 74° 57' 27" West, with said right-of-way, a distance of 60.04 feet to the **POINT OF BEGINNING** as shown on a plat that accompanies this description.

The bearing system is based on NAD83, Texas South Central.

POLLOK & SONS SURVEYING, INC.
Firm No. 10052700


Larry J. Pollok, RPLS #5186
September 25, 2019

Refer: 19-0322



STATE OF TEXAS
COUNTY OF ATASCOSA

FIELD NOTES FOR 7.00 ACRES OF LAND
TRACT 3

BEING 7.00 ACRES OF LAND OUT OF THE Y. SOTELO SR. SURVEY NO. 139, ABSTRACT NO. 822, ATASCOSA COUNTY, TEXAS AND BEING KNOWN AS TRACT 3 IN A SURVEY AND PARTITION OF THE LAND DESCRIBED IN A CONVEYANCE TO GREGORY S. DICARO IN THE DEED OF RECORD IN DOCUMENT NUMBER 139526 OF THE OFFICIAL PUBLIC RECORDS OF ATASCOSA COUNTY, TEXAS AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a set ½” rebar with a “Pollok & Sons” cap on the easterly line of Lot 2B, Zander Lane Subdivision as shown on the plat of record on Sheet 322-A, NPC, New Plat Cabinet of Atascosa County, Texas for the northwesterly corner of a 7.01 acre tract known as TRACT 2 in this survey and partition and the southwesterly corner of this tract from which a found 5/8” pin with a “Rakowitz” cap on the northerly right-of-way of Zander Lane for the southeasterly corner of said Lot 2B and the southwesterly corner of the Dicaro land bears South 12° 49’ 33” East, a distance of 925.95 feet;

THENCE North 12° 49’ 33” West, with the common line of said Lot 2B, a distance of 329.96 feet to a found 5/8” pin with a “Rakowitz” cap on the southerly line of the Stanush 4 Farms, LP land as described in Volume 158, Page 166 of the Deed Records of Atascosa County, Texas for the northeasterly corner of said Lot 2B and the northwesterly corner of the Dicaro land and of this tract;

THENCE North 74° 47’ 04” East, with the common line of said Stanush 4 Farms, LP land, a distance of 914.34 feet to a set ½” rebar with a “Pollok & Sons” cap for the northwesterly corner of the Pedro Figueroa, Jr., et ux land as described in Document 192179 of the Official Public Records of Atascosa County, Texas and the northeasterly corner of the Dicaro land and of this tract;

THENCE South 15° 32’ 40” East, with the common line of said Figueroa land, a distance of 332.10 feet to a set ½” rebar with a “Pollok & Sons” cap for the northeasterly corner of the aforementioned TRACT 2 and the southeasterly corner of this tract;

THENCE South 74° 56’ 00” West, into and across the Dicaro land and with the common line of said TRACT 2, a distance of 930.00 feet to the **POINT OF BEGINNING** and containing 7.00 acres of land as shown on a plat that accompanies this description.

The bearing system is based on NAD83, Texas South Central.

POLLOK & SONS SURVEYING, INC.
Firm No. 10052700

Larry J. Pollok, RPLS #5186
September 25, 2019

Refer. 19-0322



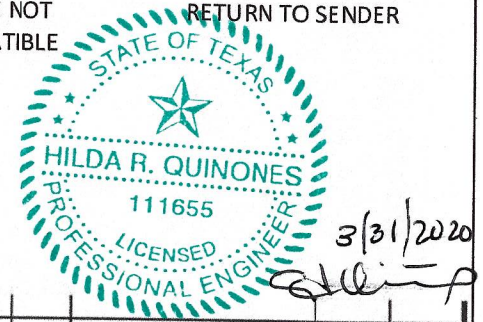
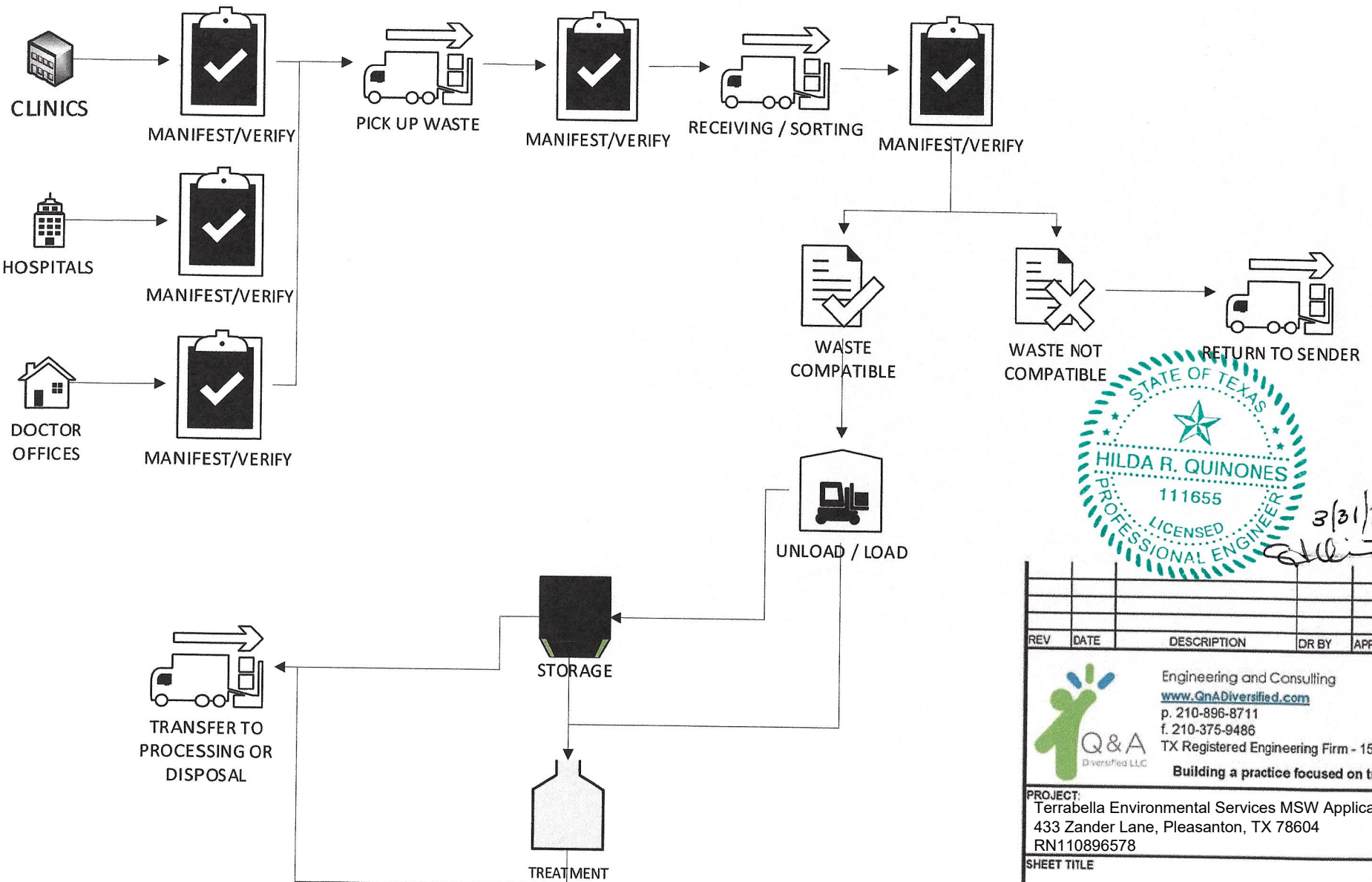
ATTACHMENT 8

COPY OF AUTHORIZATION TO DISCHARGE WASTEWATER TO A TREATMENT FACILITY


No contaminated water will be discharged off-site without specific written authorization under Texas Pollutant Discharge Elimination System (TPDES) authority.

ATTACHMENT 9

PROCESS FLOW DIAGRAMS AND NARRATIVE



REV	DATE	DESCRIPTION	DR BY	APP BY


 Engineering and Consulting
www.QnADiversified.com
 p. 210-896-8711
 f. 210-375-9486
 TX Registered Engineering Firm - 15923
 Building a practice focused on trust

PROJECT:
 Terrabella Environmental Services MSW Application
 433 Zander Lane, Pleasanton, TX 78604
 RN110896578

SHEET TITLE
 Process Flow Diagram

DES BY		SCALE: SEE BAR SCALE
DR BY		PROJECT #
CHK BY		
APP BY		SHEET OF SHEETS
DATE ISSUED		FIG#
PURPOSE		

Attachment 9

Attachment 9

Flow Diagram Narrative

Untreated medical waste is generated and identified at a health care facility. Source-separation may occur before the waste is containerized and labeled. Packaging requirements for regulated medical waste received by this facility include, but are not limited to, the following: 30 TAC 326.19, Department of Transportation - 49 CFR 178, and Occupational Safety and Health Administration - 29 CFR 1910. The containerized waste shall be collected by a registered transporter and transported to the commission-registered medical waste facility for transfer, storage, and processing as defined in 326.3(40). Upon arrival at the registered facility, the manifest(s) and waste shall be reviewed and inspected by facility personnel before the transfer of waste. Once reviewed and inspected, the waste is accepted for treatment or rejected and returned to the generator as defined in 326.75(b). Accepted waste shall be unloaded in accordance with 326.75(h). The registered facility may store waste in temporary storage prior to processing. If waste is stored for more than 72 hours, waste will be refrigerated to a temperature of 45 degrees Fahrenheit or less. Waste shall be processed at the facility as defined in §326.3(40) by registered methods. Treated waste is periodically sampled for parameters as described in §326.41 (b)(4)(A). Finally, a registered transporter will collect the treated medical waste for transport to a commission-permitted landfill for disposal as defined in 326.41(c).

ATTACHMENT 10

PROCEDURES FOR OPERATION AND TESTING OF TREATMENT EQUIPMENT

Attachment 10

Operation and Testing Procedures

The processing area at the facility will be located within a fully enclosed metal building with closeable bay doors. The building has reinforced concrete floors and concrete parking areas outside. The building was designed in accordance with all applicable local building code and land development code requirements. The facility will be surrounded a four-foot barbed wire fence or a six-foot chain-link fence or equivalent with lockable gates.

No disposal operations will take place at the facility; only waste transfer, storage and processing. Solid waste will be transported into the facility in private or commercial collection vehicles. The containerized waste will be unloaded and visually inspected to verify shipping document/manifest information as well as proper labeling and packaging per State and Federal regulations. Packaging requirements for regulated medical waste received by this facility include, but are not limited to, the following: Texas Commission on Environmental Quality - 30 TAC 330.1207, United States Department of Transportation - 49 CFR 178, and Occupational Safety and Health Administration - 29 CFR 1910. In the event unauthorized waste is discovered prior to unloading, the waste will be rejected and returned to the generator via the transporter. The unloading of containerized waste will be confined to the processing area of the building. Untreated medical waste will be managed in accordance with the provisions of 25 TAC Subchapter K and 30 TAC Subchapter Y.

In the event that reusable sharps containers are received at the facility, the reusable sharps containers will be diverted to a sharps consolidation area. The containerized sharps will be taken to the autoclave unit for processing and the reusable sharps containers will be washed and returned to generators. Terrabella Environmental Services Inc may use an automated sharps container washer at the facility.

In the event untreated medical waste needs to be refrigerated, the applicant's registered transport refrigeration vehicles will be utilized. The size and capacity of the company's fleet of refrigeration vehicles may change from time to time due to increase/decrease in fleet size. Currently, the fleet includes, but is not limited to, 24 foot to 50 foot box trailers

and trucks with capacities ranging from approximately 60 to 130 cubic yards. Terrabella Environmental Services Inc may also rent additional refrigeration units, if necessary.

The waste may be treated by steam sterilization or a Texas Department of Health approved alternate treatment technology. The two processes for the treatment of untreated medical waste that may be utilized at the facility are described below.

1. STEAM STERILIZATION

The steam sterilization system will consist of Bond-Tech autoclaves, or equivalent. Steam sterilization is a widely accepted waste processing system used in Texas for meeting regulations requiring medical waste to be treated and rendered non-infectious prior to the final disposal at an approved municipal solid waste landfill. The process consists of placing the untreated waste in a pressure vessel and forcing steam into the chamber and through the waste. When the waste is exposed to the proper temperatures as defined by the 25 Texas Administrative Codes for autoclave technology for the approved time, the waste will be rendered sterilized. The parameters of time, temperature and pressure of the steam sterilization system used at this facility will meet or exceed those required by the Department of State Health Services requirements for steam sterilization found in 25 TAC 1.133(b)(4)(8). Once the waste is sterilized, the treated waste will be stored on-site and then transported and disposed of at a TCEQ approved municipal solid waste landfill in accordance with 25 TAC 1.136 and 30 TAC 1219(b)-(e).

2. ALTERNATE TREATMENT TECHNOLOGY

Once the waste is received, the waste is transferred into a tub/cart and the net weight of the waste is electronically recorded. Once the waste has been placed on the lift and weighed, the operator engages the automated cart lift system and the lid covering the feed hopper is opened while the tub is raised and tilted to allow the waste to enter the feed hopper. As the hopper lid closes, the waste is drawn into the primary treatment chamber where the waste is treated using a Texas Department of Health approved chemical agent. The waste proceeds through the primary treatment chamber continually being shredded/macerated by the cutting

blades.

After passing through the primary treatment chamber, the waste moves to the secondary treatment chamber which is located directly below the primary treatment chamber where the final mixing and shredding/maceration will occur. The treated waste is forced from the secondary chamber into the waste exit chute. The waste passes a pH probe prior to being deposited in a waste container. A pH reading below 11 or above 12.5 will result in an automated shut-down of the system. In the event an automated shut-down occurs, the operator shall capture the waste in the waste exit chute and place it in red bags to be reprocessed until an acceptable pH range is achieved. Once treated, the shredded/macerated, dry waste is considered routine municipal solid waste and will be disposed of at a TCEQ approved municipal solid waste landfill.

ATTACHMENT 11

**PROCEDURES FOR PREPARATION OF ANY CHEMICAL
USED IN TREATMENT**

THIS SECTION IS NOT APPLICABLE

ATTACHMENT 12

VERIFICATION OF LEGAL STATUS

Corporations Section
P.O.Box 13697
Austin, Texas 78711-3697



Hope Andrade
Secretary of State

Office of the Secretary of State

CERTIFICATE OF CONVERSION

The undersigned, as Secretary of State of Texas, hereby certifies that a filing instrument for

Terrabella Environmental Services LLC
File Number: 801034159

Converting it to

TERRABELLA ENVIRONMENTAL SERVICES INC
File Number: 801586147

has been received in this office and has been found to conform to law. ACCORDINGLY, the undersigned, as Secretary of State, and by virtue of the authority vested in the secretary by law, hereby issues this certificate evidencing the acceptance and filing of the conversion on the date shown below.

Dated: 04/23/2012

Effective: 04/23/2012

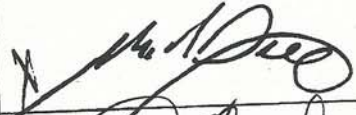



A handwritten signature in cursive script, reading "Hope Andrade".

Hope Andrade
Secretary of State

Form 2553 (Rev. 12-2007)

Part I Election Information (continued)

J Name and address of each shareholder or former shareholder required to consent to the election. (See the instructions for column K.)	K Shareholders' Consent Statement. Under penalties of perjury, we declare that we consent to the election of the above-named corporation to be an S corporation under section 1362(a) and that we have examined this consent statement, including accompanying schedules and statements, and to the best of our knowledge and belief, it is true, correct, and complete. We understand our consent is binding and may not be withdrawn after the corporation has made a valid election. (Sign and date below.)		L Stock owned or percentage of ownership (see instructions)		M Social security number or employer identification number (see instructions)	N Shareholder's tax year ends (month and day)
	Signature	Date	Number of shares or percentage of ownership	Date(s) acquired		
MICHEAL D CARR 4906 SILENT LAKE SAN ANTONIO TEXAS 78244			50%	04/23/12	574-32-3810	12/31
AARON T CAMPBELL 5376 FM 1784 PLEASANTON			50%	04/23/12	459-77-9103	12/31

Form 2553 (Rev. 12-2007)

ATTACHMENT 13

TEXAS DEPARTMENT OF TRANSPORTATION COORDINATION LETTERS

March 31 2020

Mario R. Jorge
District Engineer - Project Review
Texas Department of Transportation (TxDOT)
4615 NW Loop 410
San Antonio, TX 78229-0928

Certified Mail: _____

7018 1830 0000 4747 0208

Re: Type V Registration Application
Terrabella Environmental Services Inc.
Pleasanton, Atascosa County, Texas

Dear Mr. Jorge:

On behalf of our client, Terrabella Environmental Services Inc (TES), Q&A Diversified would like to take this opportunity to inform you of the pending submittal of the TES application to the Texas Commission on Environmental Quality (TCEQ) for a Type a medical waste transfer site. The medical waste transfer station will process, store and transfer medical waste, outdated/off specification pharmaceuticals and seized drugs. Sources of these waste streams include hospitals, clinics, nursing homes, and other health care related facilities. In addition to these waste streams, the facility may accept Animal and Plant Health Inspection Services (APHIS) and International Maritime Pollution Protocol (MarPol) wastes.

If the TxDOT has any comments or concurrence that the facility complies with the traffic and location restrictions for this road, please send them to me in writing. They will be included as a supplement to the application. If the project will be considered at a meeting of the TxDOT advisory committee, please advise as soon as you can so arrangements can be made to attend.

Thank you for your time and assistance. If you have any questions or need any additional information, please call me at 210-896-8711 or e-mail me at hildaq@qnadiversified.com.

Sincerely,



Hilda R. Quinones, P.E.
Enclosure

PO Box 761283, San Antonio, TX 78245 • www.qnadiversified.com
TX Registered Engineering Firm F-15923





SAN ANTONIO DISTRICT OFFICE | 4615 NW LOOP 410 | SAN ANTONIO, TX 78229 (210) 615-1110 | WWW.TXDOT.GOV

June 22, 2020

Mr. Alan Wong and Ms. Bria Paterson
TCEQ Municipal Solid Waste Permits Section, MC-124
P.O. Box 13087
Austin, TX 78711-3087
RE: Facility Location – 433 Zander Lane, Pleasanton, Texas


Dear Mr. Wong and Ms. Paterson:

TxDOT has reviewed the proposed route for the above referenced facility. Based on the information provided in the coordination letter, the project traffic generated by the facility is minimal and will not require any improvements to the existing State roadways.

We have concluded that the State maintained roadways, IH 37 and SH 97 in Atascosa County, are adequate and have the design capacity to safely accommodate the additional traffic referenced in your registration applications located on your website at <https://www.qnadiversified.com/permits>.

If you have any questions, please feel free to contact Christen Longoria at (830) 741-6607.

Sincerely,

DocuSigned by:

3968EB9D95514E0...
Mario R. Jorge, P.E.
San Antonio District Engineer

Attachment:
Coordination Letter – June 4, 2020

CC:
Barrlynn West Jr. – Environmental Specialist
Christen Longoria, P.E. – Hondo Area Engineer

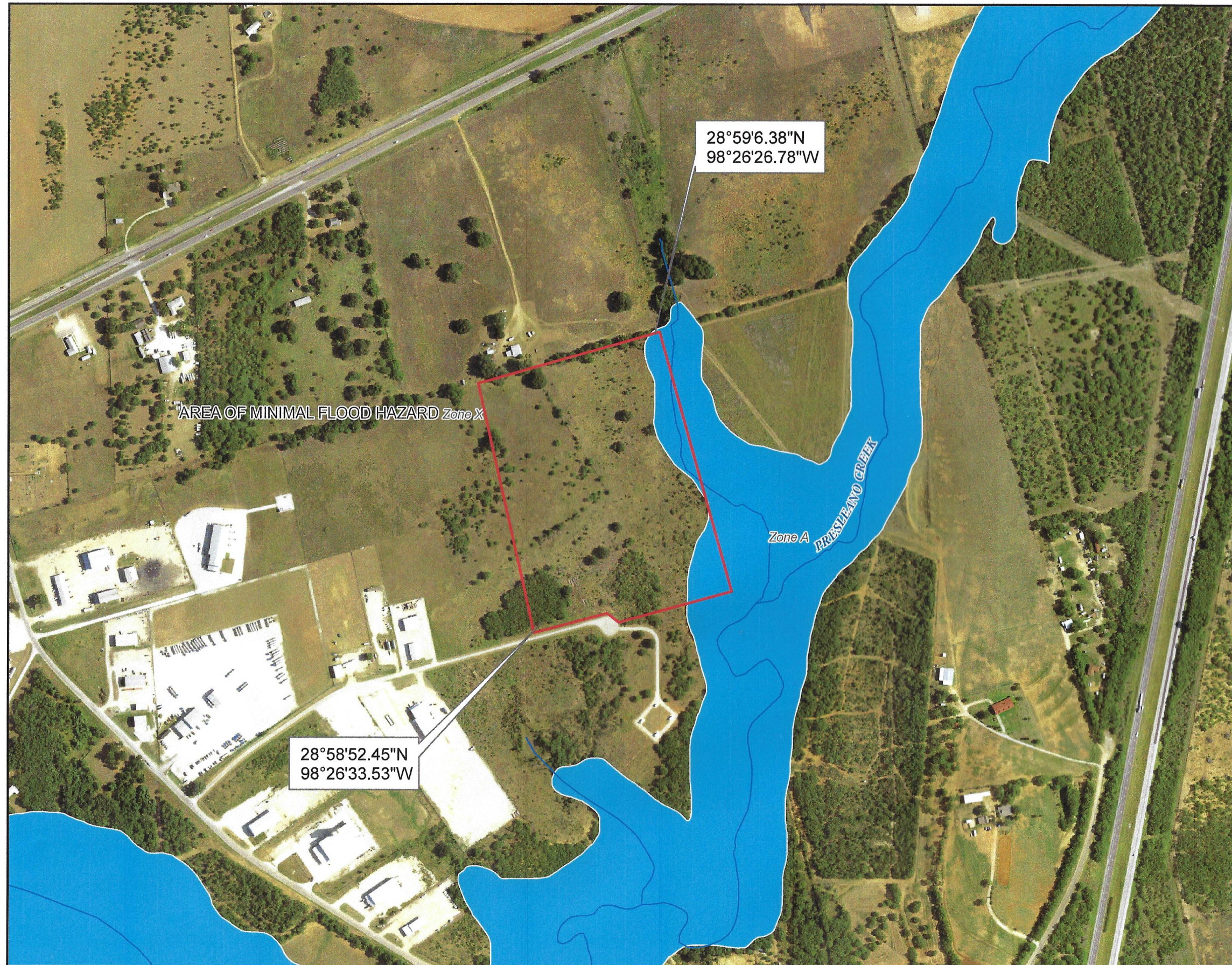
ATTACHMENT 14

ENTITY EXERCISING MAINTENANCE RESPONSIBILITY OF PUBLIC ROADWAY

THIS SECTION IS NOT APPLICABLE

ATTACHMENT 15

FEMA MAP



0 250 500 1,000 Feet

Center of Property
28°58'56.33"N
98°26'32.30"W



- Property Line
- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee

3/31/2020
For permit use only



REV	DATE	DESCRIPTION	DR BY	APP BY

PREPARED BY **Q&A Diversified, LLC**
Engineering and Consulting
 San Antonio, TX 78251
 TX Registered Engineering Firm 15923
 210-896-8711
www.QnADiversified.com
 Building a practice focused on trust

PROJECT
Terrabella Environmental Service
Type V MSW Application
 433 Zander Lane
 Pleasanton, TX 78604
 RN 110896578



SHEET TITLE	
FEMA Flood Plain	
DES BY	MAP SOURCE
DR BY	FEMA - NFHL
CHK BY	PURPOSE
APP BY	FOR PERMITTING PURPOSES ONLY
DATE	FIGURE
MARCH 2020	Attachment 15

National Flood Hazard Layer FIRMette

28°59'5.68"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

28°58'34.20"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/16/2020 at 8:53:21 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



98°26'21.04"W

ATTACHMENT 16

**FACILITY DESIGN DEMONSTRATION FOR FLOOD
MANAGEMENT, OR CONDITIONAL
LETTER OF MAP AMENDMENT FROM FEMA**

ATTACHMENT 16
FACILITY SURFACE WATER DRAINAGE REPORT
CERTIFICATION STATEMENT

I, Michael Deane Ferabola Env., (owner and/or operator) certify the following:

- (1) The facility will be constructed, maintained, and operated to manage run-on and run-off during the peak discharge of a 25-year rainfall event and must prevent the off-site discharge of waste and feedstock material, including, but not limited to, in-process and/or processed materials.
- (2) Surface water drainage in and around a facility will be controlled to minimize surface water running onto, into, and off the treatment area.
- (3) The owner or operator will obtain the appropriate Texas Pollutant Discharge Elimination System storm water permit coverage when required; or shall provide the permit number for coverage under an individual wastewater permit.
- (4) The facility will be located outside of the 100-year floodplain unless the owner or operator can demonstrate that the facility is designed and will be operated in a manner to prevent washout of waste during a 100-year storm event, or the facility obtains a conditional letter of map amendment from the Federal Emergency Management Administration administrator.
- (5) The facility will not be located in wetlands unless the owner or operator provides documentation to the extent required under Clean Water Act, §404 or applicable state wetlands laws, that steps have been taken to attempt to achieve no net loss of wetlands.

Signature: _____

Date: _____

ATTACHMENT 17

WETLAND DOCUMENTATION

THIS SECTION IS NOT APPLICABLE

ATTACHMENT 18

COUNCIL OF GOVERNMENTS REVIEW REQUEST COORDINATION LETTERS

March 31, 2020

Christopher Moken
Solid Waste Management Coordinator
Project Review
Alamo Area Council of Governments
8700 Tesoro Dr., Suite 160
San Antonio, TX 78217

Certified Mail: _____

7018 1830 0000 4747 0215

Re: Type V Registration Application
Terrabella Environmental Services Inc.
Pleasanton, Atascosa County, Texas

Dear Mr. Moken:

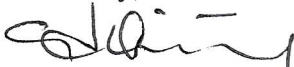
On behalf of our client, Terrabella Environmental Services Inc (TES), Q&A Diversified would like to take this opportunity to inform you of the pending submittal of the TES application to the Texas Commission on Environmental Quality (TCEQ) for a Type a medical waste transfer site. The medical waste transfer station will process, store and transfer medical waste, outdated/off specification pharmaceuticals and seized drugs. Sources of these waste streams include hospitals, clinics, nursing homes, and other health care related facilities. In addition to these waste streams, the facility may accept Animal and Plant Health Inspection Services (APHIS) and International Maritime Pollution Protocol (MarPol) wastes.

The facility address is 433 Zander Lane, Pleasanton, Atascosa County, Texas 78064. Please refer to the enclosed General Location Map. The TCEQ registration application can be viewed online at <http://www.qnadiversified.com/permits>. The drawings located in the application will provide you with information regarding not only the facility location but also general land use.

If the AACOG has any comments or concurrence that the facility complies with the regional solid waste plan, please send them to me in writing. They will be included as a supplement to the application. If the project will be considered at a meeting of the AACOG solid waste advisory committee, please advise as soon as you can so arrangements can be made to attend.

Thank you for your time and assistance. If you have any questions or need any additional information, please call me at 210-896-8711 or e-mail me at hildaq@qnadiversified.com.

Sincerely,



Hilda R. Quinones, P.E.

Enclosure

PO Box 761283, San Antonio, TX 78245 • www.qnadiversified.com
TX Registered Engineering Firm F-15923





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County Judge, Atascosa County
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Mayor, City Balcones Heights
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State Representative, District 53
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Jim O. Wolverton
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Kyle Biedermann (Ex-Officio)
State Representative, District 73
Ryan Guillen (Ex-Officio)
State Representative, District 31
John Kuempel (Ex-Officio)
State Representative, District 44
COL. Peter Velesky (Ex-Officio)
Joint Base San Antonio
Judith Zaffirini (Ex-Officio)
State Senator, District 21

April 28, 2020

Office of the Chief Clerk, MC-105
TCEQ
P.O. Box 13087
Austin, TX 78711

RE: Terrabella Environmental Services, Inc. MSW Facility Registration Applications

Dear Office of the Chief Clerk:


The Alamo Area Council of Governments (AACOG) received notice from Terrabella Environmental Services, Inc. that they are applying to TCEQ for 3 new facilities: Type V Medical Liquid Waste Facility, Medical Waste Transfer Station, and Medical Waste Processing Facility. The AACOG Resource Recovery Committee (RRC) held a meeting on April 15, 2020, where the RRC Checklist for the 3 new facilities proposed by Terrabella Environmental Services, Inc. in the AACOG region were reviewed. The RRC agreed the proposed facilities, to be located at 433 Zander Lane, Pleasanton, 78064 and 5376 FM 1784, Pleasanton, TX 78064 comply with the AACOG Regional Solid Waste Management Plan (RSWMP).

On April 22, 2020, the AACOG Board of Directors approved the RRC recommendation to submit a letter to TCEQ acknowledging the facilities comply with AACOG's RSWMP contingent upon AACOG receiving approval for the facilities from either the Atascosa County Judge or the Precinct Commissioner in which the facilities would be located.

Concurrence with the proposed MSW facilities was received from the Atascosa County Judge and Atascosa County Commissioner representing Precinct 4 on April 28, 2020.

Please do not hesitate to contact Christopher Moken at cmoken@aacog.com for any questions or comments on this letter.

Sincerely,


Diane D. Rath
Executive Director

March 31, 2020

Hon. Robert L Hurley
County Judge
Project Review Letter Request
Atascosa County
1 Courthouse Circle Dr., Suite 101
Jourdanton, TX 78026

Certified Mail: 7018 1830 0000 4747 0345

Re: Type V Registration Application
Terrabella Environmental Services Inc
Pleasanton Processing Facility
Pleasanton, Atascosa County, Texas

Dear Hon. Robert L Hurley:

On behalf of our client Terrabella Environmental Services Inc (TES), Q&A Diversified LLC would like to take this opportunity to inform you of a TES application to the Texas Commission on Environmental Quality (TCEQ) for a *Type V Registration* for the operation for a municipal solid waste (MSW) transfer facility. The facility address is 433 Zander Lane, Pleasanton, Atascosa County, TX 78064. Please refer to the General Location Map available online at <https://www.qnadiversified.com/permits>.

I am requesting acknowledgement, in writing, that the TES MSW Transfer Facility will be in compliance with the local solid waste plan. In accordance with the rules, this letter of acknowledgement will be submitted to the TCEQ application review personnel.

Thank you for your time and assistance. If you have any questions or need additional information, please call me at 210-896-8711 or email me at hildaq@qnadiversified.com.

Sincerely,



Hilda R. Quinones, P.E.

Enclosure

The document on our website is titled "Terrabella Liquid Waste MSW Application Zander Lane."

PO Box 761283, San Antonio, TX 78245 • www.qnadiversified.com
TX Registered Engineering Firm F-15923





Robert L. Hurley
Atascosa County Judge
1 Courthouse Circle Dr. Suite 206
Jourdanton, Texas 78026
countyjudge@atascosacounty.texas.gov
830-769-3093

April 28, 2020

Re: 1. Medical Waste Transfer & Processing Facility - 433 Zander Lane, Pleasanton, TX 78064
2. Liquid Waste MSW Facility - 433 Zander Lane, Pleasanton, TX 78064
3. Medical Waste Transfer Station - 5376 FM 1784, Pleasanton, TX 78064

To Whom It May Concern;

Regarding the three applications for Terrabella Environmental Services Inc. (TES): Type V medical waste transfer site to be located at 433 Zander Lane, Pleasanton, Atascosa County, Texas; Type V Registration for the operation of a municipal solid waste transfer facility at 5376 FM 1784, Pleasanton, Atascosa County, Texas and Type V Registration for the operation of a municipal solid waste (MSW) transfer facility at 433 Zander Lane, Pleasanton, Atascosa County, Texas. TES has made contact with the Atascosa County Commissioners Court regarding each of these applications informing us of the processes and plans. We have determined that they will be in compliance with the Atascosa County solid waste plan for each of the aforementioned projects.

If you should have any questions please do not hesitate to contact this office.

Sincerely,

Robert L. Hurley
Atascosa County Judge

March 31, 2020

At the time of this submission, we have not received a response to this letter.

Kennard "Bubba" Riley
County Commissioner – Precinct 4
Project Review Letter Request
Atascosa County
1 Courthouse Circle Dr., Suite 105
Jourdanton, TX 78026

Re: Type V Registration Application
Terrabella Environmental Services Inc
Pleasanton, Atascosa County, Texas

Dear Mr. Riley:

On behalf of our client Terrabella Environmental Services Inc (TES), Q&A Diversified LLC would like to take this opportunity to inform you of a TES application to the Texas Commission on Environmental Quality (TCEQ) for a Type V medical waste transfer site. The medical waste transfer station will process, store, and transfer medical waste, outdated/off specification pharmaceuticals and seized drugs. Sources of these waste streams include hospitals, clinics, nursing homes, and other health care related facilities. In addition to these waste streams, the facility may accept Animal and Plant Health Inspection Services (APHIS) and International Maritime Pollution Protocol (MarPol) wastes.

The facility address is 433 Zander Lane, Pleasanton, Atascosa County, TX 78064. Please refer to the General Location Map available online at <https://www.qnadiversified.com/permits>. The document is titled "Terrabella Medical Waste Processing Application Zander Lane." The drawings located in the application will provide you with information regarding not only the facility location, but also general land use.

I am requesting acknowledgement, in writing, that the TES Processing Facility will be in compliance with the local solid waste plan. In accordance with the rules, this letter of acknowledgement will be submitted to the TCEQ application review personnel.

Thank you for your time and assistance. If you have any questions or need additional information, please call me at 210-896-8711 or email me at hildaq@qnadiversified.com.

Sincerely,

Hilda R. Quinones, P.E.

Enclosure

March 31, 2020

Mark Wolfe
State Historic Preservation Officer
Texas Historical Commission
P.O. Box 12276
Austin, TX 78711-2276

Re: Type V Registration Application
Terrabella Environmental Services Inc
Pleasanton, Atascosa County, Texas

Dear Mr. Wolfe:

Q&A is preparing a Type V *Medical Processing Registration* application for Terrabella Environmental Services Inc located at 433 Zander Lane, Pleasanton, Atascosa County, TX 78064. Please refer to the enclosed General Location Map and Topographic Map. The registration application is being prepared to allow Terrabella Environmental Services Inc to transfer, store and treat regulated medical waste.

This letter is being written in accordance with the TCEQ MSW Regulation 30 TAC 330.61(o) which states:

“The owner or operator shall submit a review letter from the Texas Historical Commission documenting compliance with the Natural Resources Code, Chapter 191, Texas Antiquities Code.”

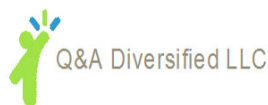
I am requesting acknowledgement, in writing, that the Terrabella Environmental Services Inc's Processing Facility complies with the current Texas Historical Commission's requirements. If you determine that the above referenced project may proceed, past practices of stamping the request letter with your determination is acceptable documentation. In accordance with the rules, this letter of acknowledgement will be submitted to the TCEQ application review personnel.

Thank you for your time and assistance. If you have any questions or need any additional information, please call me at 210-896-8711 or e-mail me at hildaq@qnadiversified.com.

Sincerely,

Hilda R. Quinones, P.E.

Enclosure



Victoria Kinnamont <victoria.kinnamont@qnadiversified.com>

Fwd: Project Review: 202011946

1 message

Q&A DIVERSIFIED <hildaq@qnadiversified.com>

Wed, Apr 22, 2020 at 4:11 PM

To: Victoria Kinnamont <victoria.kinnamont@qnadiversified.com>

Hilda Q

Hilda Quinones
Q&A Diversified LLC
O: [210-896-8711](tel:210-896-8711)
M: 210-391-4778
www.qnadiversified.com

Begin forwarded message:

From: noreply@thc.state.tx.us

Date: April 22, 2020 at 3:29:26 PM CDT

To: hildaq@qnadiversified.com, reviews@thc.state.tx.us

Subject: Project Review: 202011946



TEXAS HISTORICAL COMMISSION
real places telling real stories

Re: Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas
THC Tracking #202011946
Terrabella Environmental Services Inc

Dear Hilda R. Quinones, P.E.:

Thank you for your submittal regarding the above-referenced project. This response represents the comments of the Executive Director of the Texas Historical Commission (THC), pursuant to review under the Antiquities Code of Texas.

The review staff led by Emily Dylla has completed its review and has made the following determinations based on the information submitted for review:

Archeology Comments

- No effect on archeological sites. However, if buried cultural materials are encountered during construction or disturbance activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions concerning our review or if we can be of further

assistance, please email the following reviewers: emily.dylla@thc.texas.gov

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit <http://thc.texas.gov/etrac-system>.

Sincerely,

A handwritten signature in black ink, appearing to read "William A. Martin". The signature is fluid and cursive, with a long horizontal stroke at the end.

For Mark Wolfe, State Historic Preservation Officer
Executive Director, Texas Historical Commission

Please do not respond to this email.

ATTACHMENT 19

TCEQ CORE DATA FORM(S)



TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> Other
2. Customer Reference Number (if issued)		3. Regulated Entity Reference Number (if issued)
CN 604334904		RN 110896578

[Follow this link to search for CN or RN numbers in Central Registry**](#)

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)		3/1/2020	
<input type="checkbox"/> New Customer		<input checked="" type="checkbox"/> Update to Customer Information		<input type="checkbox"/> Change in Regulated Entity Ownership	
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				If new Customer, enter previous Customer below:	
Terrabella Environmental Services Inc					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	
801586147		12634459726			
11. Type of Customer:		<input checked="" type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited	
12. Number of Employees		<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		13. Independently Owned and Operated?	
				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input type="checkbox"/> Owner		<input type="checkbox"/> Operator		<input checked="" type="checkbox"/> Owner & Operator	
<input type="checkbox"/> Occupational Licensee		<input type="checkbox"/> Responsible Party		<input type="checkbox"/> Voluntary Cleanup Applicant <input type="checkbox"/> Other:	
15. Mailing Address:		PO Box 39			
City		Leming		State TX ZIP 78050 ZIP + 4 0039	
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)	
				mcarr@terrabellaes.com	
18. Telephone Number		19. Extension or Code		20. Fax Number (if applicable)	
(210) 892-4496				(210) 892-4497	

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)	
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input checked="" type="checkbox"/> Update to Regulated Entity Information	
The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).	
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)	
Terrabella Environmental Services Pleasanton	

23. Street Address of the Regulated Entity: (No PO Boxes)	433 Zander Lane							
	City	Pleasanton	State	TX	ZIP	78064	ZIP + 4	
24. County	Atascosa							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:								
26. Nearest City					State	Nearest ZIP Code		
27. Latitude (N) In Decimal:	28.982765°				28. Longitude (W) In Decimal:	-98.441789°		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
28	58	56.33	98	26	32.30			
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)		31. Primary NAICS Code (5 or 6 digits)		32. Secondary NAICS Code (5 or 6 digits)			
8999	4211		541620		484110			
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)								
Storage and treatment of hazardous materials and hazardous waste management								
34. Mailing Address:	PO Box 39							
	City	Lemming	State	TX	ZIP	78050	ZIP + 4	39
35. E-Mail Address:		MCARR@TERRABELLAES.COM						
36. Telephone Number		37. Extension or Code		38. Fax Number (if applicable)				
(210) 663-4370				(210) 892-4497				

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

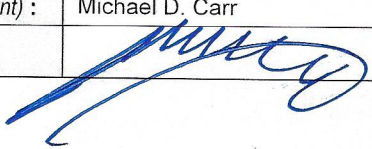
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input checked="" type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	Hilda Quinones, P.E.		41. Title:	Consultant
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address	
(210) 896-8711		() -	hildaq@qnadiversified.com	

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Terrabella Environmental Services		Job Title:	President
Name(In Print):	Michael D. Carr		Phone:	(210) 663-4370
Signature:			Date:	25 MAR 20

ATTACHMENT 20

FEE RECEIPT OR COPY OF CHECK

Your transaction is complete. Thank you for using TCEQ ePay.

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt and the vouchers for your records. An email receipt has also been sent.

Transaction Information

Trace Number: 582EA000386002
Date: 03/27/2020 03:20 PM
Payment Method: CC - Authorization 0000036293
Amount: \$150.00
ePay Actor: Hilda Quinones
Actor Email: hildaq@qnadiversified.com
IP: 24.28.151.54

Payment Contact Information

Name: Hilda Quinones
Company: Q&A Diversified Llc
Address: 9542 Bertram St, San Antonio, TX 78251
Phone: 210-896-8711

Cart Items

Click on the voucher number to see the voucher details.

Voucher	Fee Description	AR Number	Amount
461994	MSW PERMIT/REGISTRATION/AMEND/MOD/TEMP AUTHORIZATIONS APPLICATION FEE		\$100.00
461995	30 TAC 305.53B MWP NOTIFICATION FEE		\$50.00
Total fees for transaction:			\$150.00

[ePay Again](#)[Exit ePay](#)

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt for your records.

ATTACHMENT 21

PUBLISHED ZONING MAP

THIS SECTION IS NOT APPLICABLE

ATTACHMENT 22

DELEGATION OF SIGNATORY AUTHORITY

THIS SECTION IS NOT APPLICABLE

ATTACHMENT 23

MANUFACTURER SPECIFICATIONS FOR WASTE MANAGEMENT UNITS



1278 Hwy 461
Somerset KY 42503
Direct Line: (305) 668-8650
Corp. Office: (800) 414-4231
Corp. Fax: (606) 676-9157

1.1.0 **BONDTECH AUTOCLAVE/STERILIZER SYSTEM SPECIFICATIONS**

High vacuum/High pressure, Computer controlled, Bondtech autoclave system to treat biomedical waste on-site

1.1.1 **AUTOCLAVE DIMENSIONS AND CAPACITY**

BTT6X13	Thruput: ~ 1,000 to 1,200 lbs/cycle
6' dia X 13' long	Cycle Time: 45 to 50min
Pressure Grade Carbon Steel	
Number of bins: 3-4 Bins/Load	

1.1.2 **AUTOCLAVE VESSEL SPECIFICATIONS**

Opening Assembly:	Single door/quick opening door/safety pin interlock
Loading Arrangement:	Horizontal
Pressure Vent:	Spray condenser

1.1.3 **INSULATION**

The exterior of the autoclave will be insulated with 2" of fiberglass, which will be covered with an aluminum jacket to protect the insulation, and to make sure the equipment can be kept clean.

1.1.4 **PROCESS VALVES**

Complete with the process valves including steam supply, pressure vent and safety relief. The steam inlet valve is a **high-resolution pneumatic proportional valve for a smooth accurate control of steam pressure**. For safety, the steam inlet valve is a normally closed valve that closes in the event of any power loss.

1.1.5 **AUTOCLAVE VESSEL DESIGN**

The autoclave vessel is designed, fabricated, tested and certified in accordance with the ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, for Unfired Pressure Vessels. The vessel is designed for full vacuum. The sterilization unit is formed and welded into a horizontal cylindrical pressure vessel with a hydraulic quick opening door. The vessel includes two rigid support saddles to facilitate a simple installation. The front face of the vessel has a machine groove for the rigid high temperature seal gasket.

1.1.6 **VACUUM SYSTEM.**

Vacuum: Vacuum: 18"-22" Hg.
High Efficiency Vacuum System

Vacuum Capability: 18"-22" Hg, 3 minutes

Pre-vacuum: The pre-vacuum process will evacuate the autoclave 18"-22" Hg. This process will achieve the removal of air from the autoclave to provide a quick and efficient penetration of steam throughout the medical waste load.

Post-vacuum: The post-vacuum process removes excess steam from the vessel and expedites the steam purging process. This process removes excess moisture from waste load resulting in a lighter/drier treated waste product for disposal. Moisture removal effectively controls nuisance odors.

1.1.7 STEAM CONDENSER

Independent steam condenser manufactured of pressure-grade steel. The condenser is designed for quick and efficient steam purge from the autoclave vessel. Process steam is fully condensed externally to the autoclave vessel. ***Steam purge process is completed within approx 2-3 minutes.***

1.1.8 DOOR OPERATION, SEALING AND LOCKING MECHANISM

The door is hinged mounted on the autoclave. Mounting arrangements to provide full movement to a full open position. Preferred sealing system to utilize one-piece extruded material O-ring seal type. The door has a positive lock type safety design per the ASME requirements. The locking mechanism is interlocked with the control system to prevent opening the door while under pressure, and to prevent pressurization when the door is unlocked. The door is designed with several safety features that include electric/mechanical interlock switch, PLC interlock, door safety handle interlock, visual site gauge for pressure monitor and analog dial pressure/temperature indicators.

1.1.9 MATERIAL HANDLING

Autoclave tracks will be provided for the autoclave bins.

1.1.10 SYSTEM PIPING.

The autoclave system will completely piped at the factory prior to shipment for simple installation. The system piping will consist of the following:

- Steam condenser piping – steam outlet piping direct to steam condenser. Steam is condensed by controlling water flow through the steam condenser with respect to steam pressure inside the vessel. The water flow control minimizes the consumption of water.
- Condensate Drains Steam traps (2) – front and rear steam traps maintains the vessel free of condensate.
- Vacuum Valve/Piping – autoclave is hard piped to either steam ejector or vacuum pump for integrating vacuum system to vessel.
- Steam Inlet Valve/Strainer – proportionally controlled steam inlet valve for smooth and accurate control of steam pressure inlet. Steam inlet valve is controlled by a PID loop controlled by the PLC.

1.1.11 CONTROL SYSTEM/PROCESS VALVES/CONTROL PANEL & INSTRUMENTATION

The autoclave system is controlled by a state-of-the-art “SuperMicro” Programmable Logic Controller (PLC) with modem hookup capabilities for online support. The PLC performs automatic sterilization control that includes pre-vacuum, pressurization/heat soak, vent and post-vacuum. The PLC monitors pressure vessel conditions for providing safety interlock for door operation.

1.1.12.1 SUPERMICRO PROGRAMMABLE LOGIC CONTROLLER (PLC).

The PLC provides the function controls that automatically commands the process cycle steps for the autoclave system. Extensive data memory (over 8,000 Data Registers) for capturing real time operating parameters that continuously monitors autoclave system performance.

The PLC support on-line troubleshooting/programming functions, used in system development and commissioning. Remote programming/monitoring capability by modem provides for immediate technician support. This PLC system has the external data link integration capability for communication with other peripheral systems (PC, network, control systems, etc).

1.1.12.2 SYSTEM PROGRAMMING

PLC program application is based on the industry standard ladder logic. Programming can be performed by authorized personnel with access to system entry code.

Simple pushbutton entry pad allows the authorized personnel to enter specific parameters including the following:

- Pre-Vacuum Set Point
- Pre-Vacuum Timer
- Sterilization Temperature/Pressure
- Sterilization Heat Soak Time
- Vent Time Set Control
- Post-Vacuum Set Point
- Post-Vacuum Timer

In addition to the above, specific alarms are setup for triggering equipment shutdown and notifying the operator in the event that temperature and/or pressure parameters are not satisfied.

The startup program will be installed and tested by Bondtech technicians during startup. Efficacy testing will be performed to certify that the Bondtech autoclave cycle satisfies the minimum requirements established by the South Carolina DHEC.

1.1.13 CONTROL SYSTEM PRINTER

The control system printer is a state of the art Honeywell printer. The printer generates continuous data that provides the history of every autoclave cycle.

The printer will record and generate chart data that includes the following:

- Time and Date of every autoclave cycle.
- Cycle Start and Cycle End Time.
- Continuous Cycle Vacuum & Pressure
- Continuous Cycle Temperature

2.0 Start-up/Testing/Training.

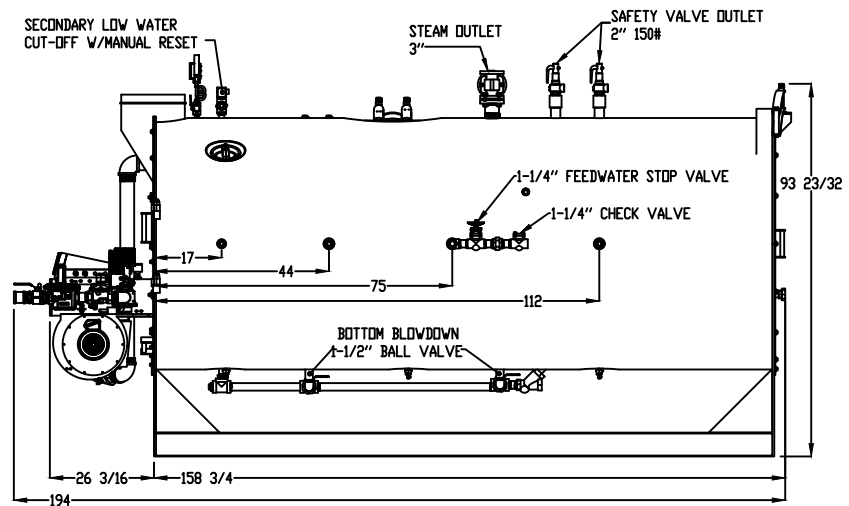
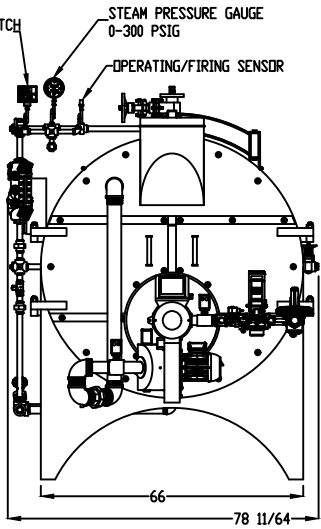
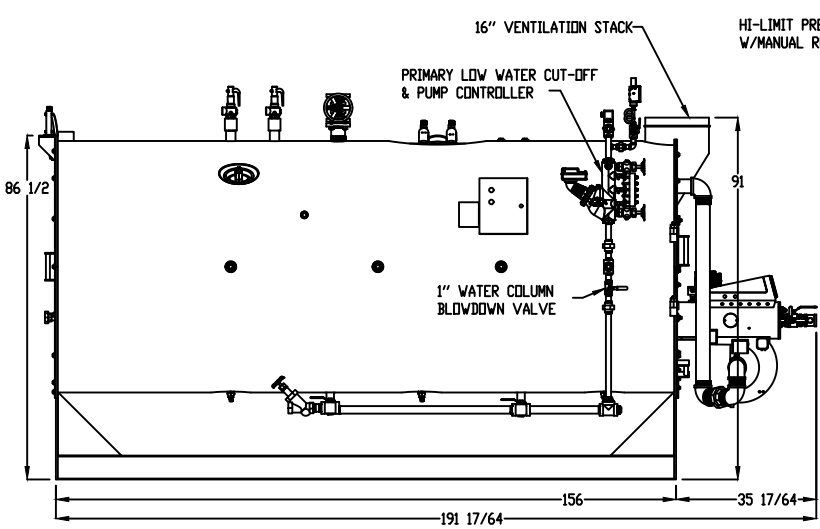
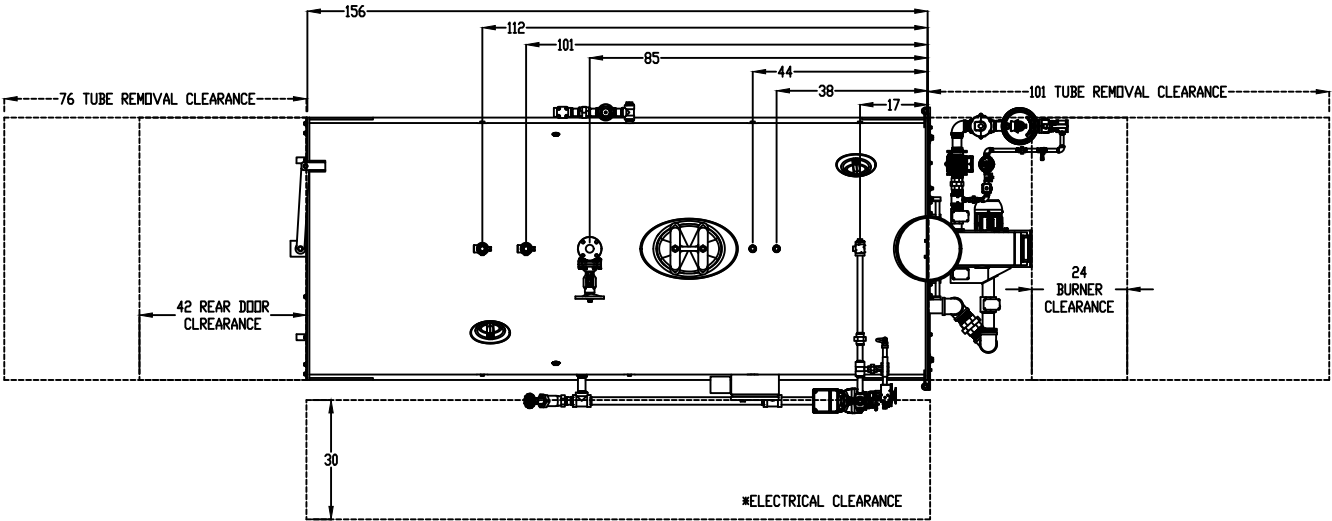
The Bondtech start-up supervision will include the following:

Bondtech Start-up supervision, Operator Training & Equipment Documentation.

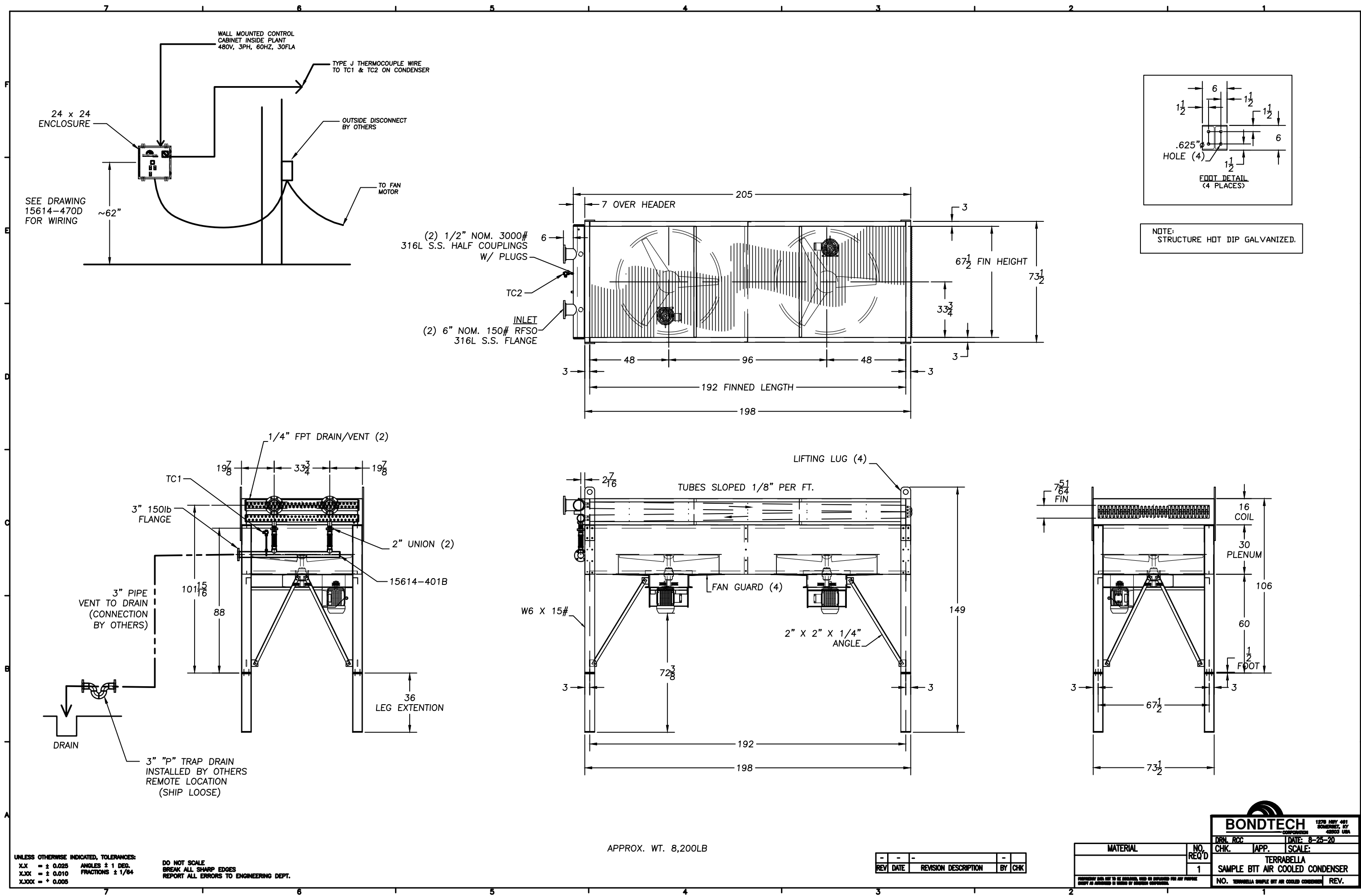
Bondtech will conduct classroom and “hands-on” training sessions. The Bondtech training program will focus: 1. Safe Operation, 2. Compliance & 3. System Maintenance. Bondtech will provide a comprehensive training program that includes the following.

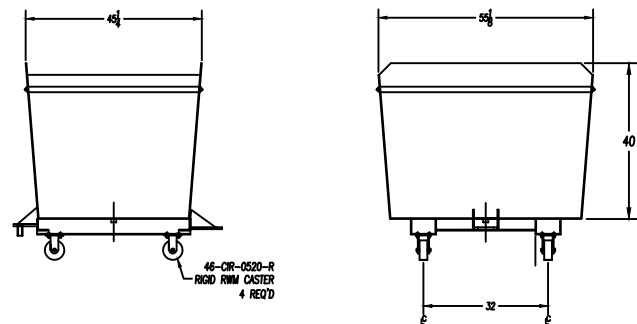
- a. Bondtech SOP. Bondtech will develop a Standard Operation Procedure (SOP) specific for customer’s operation. The SOP will address compliance with State Environmental Agency’s medical waste treatment regulations.*
- b. Bondtech Personnel Classroom Training. Bondtech will perform a classroom type training session. Personnel will receive his/her own copy of the Bondtech medical waste sterilization SOP. After the classroom training is completed, all trained personnel will execute a SOP Training Certification Form.*
- c. Bondtech Equipment Operation Training. After the classroom SOP training, Bondtech will conduct a comprehensive equipment operation & maintenance “hands-on” training session.*
- d. Bondtech Operation and Maintenance Manuals. Bondtech will provide one copy (three ring binder) of the Bondtech Operation and Maintenance (O&M) manual. The O&M manual will include complete installation drawings, parts/components properly identified and electrical/control wiring schematics.*

BONDTECH
CORPORATION

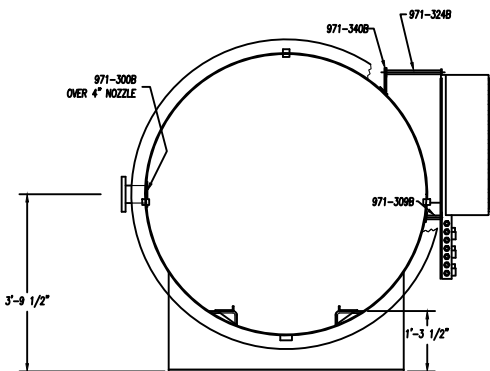
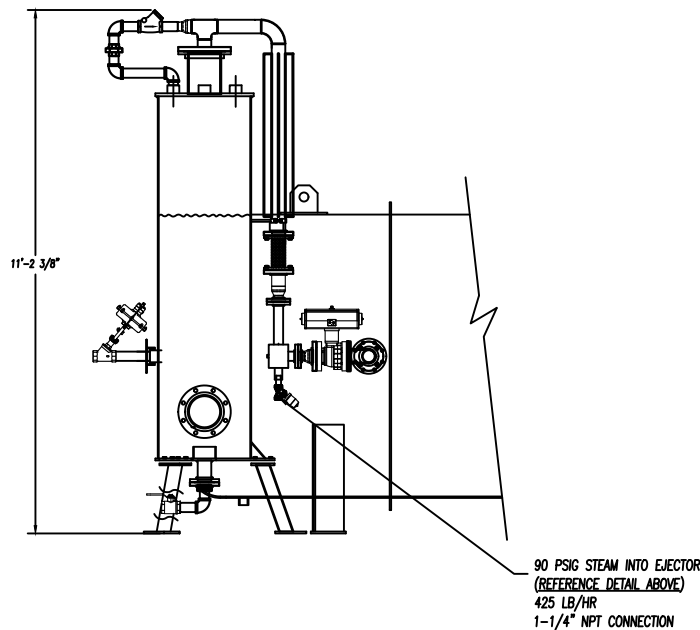
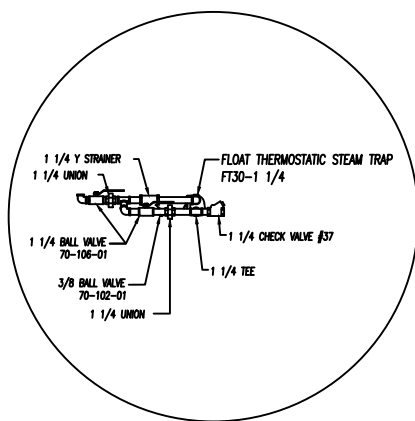


BONDTECH CORPORATION			
1270 HWY. 401 CHAMBERS, NY 48030 USA		DATE: 8-26-20	
DRN. RCC	CHK.	IAPP.	SCALE:
MATERIAL		NO. REQ'D	1
TERRABELLA			
SAMPLE BTT AIR COOLED CONDENSER			
NO. TERRABELLA SAMPLE BTT AIR COOLED CONDENSER		REV.	

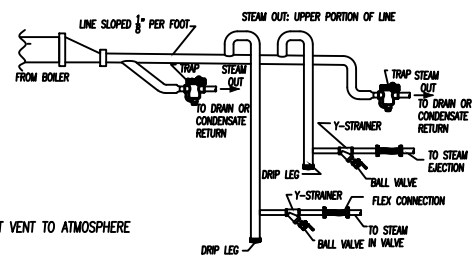
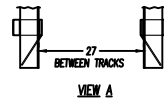




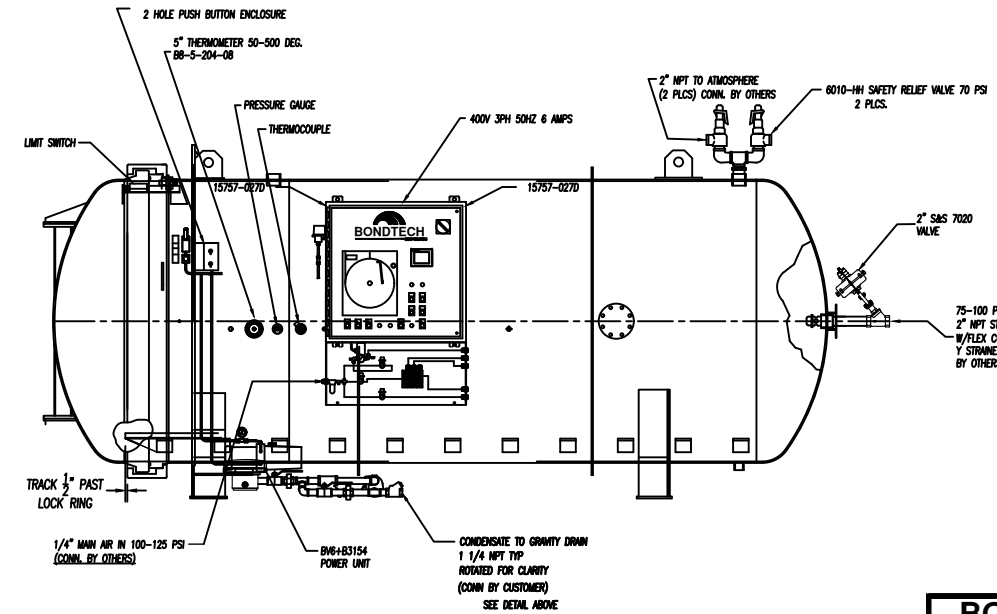
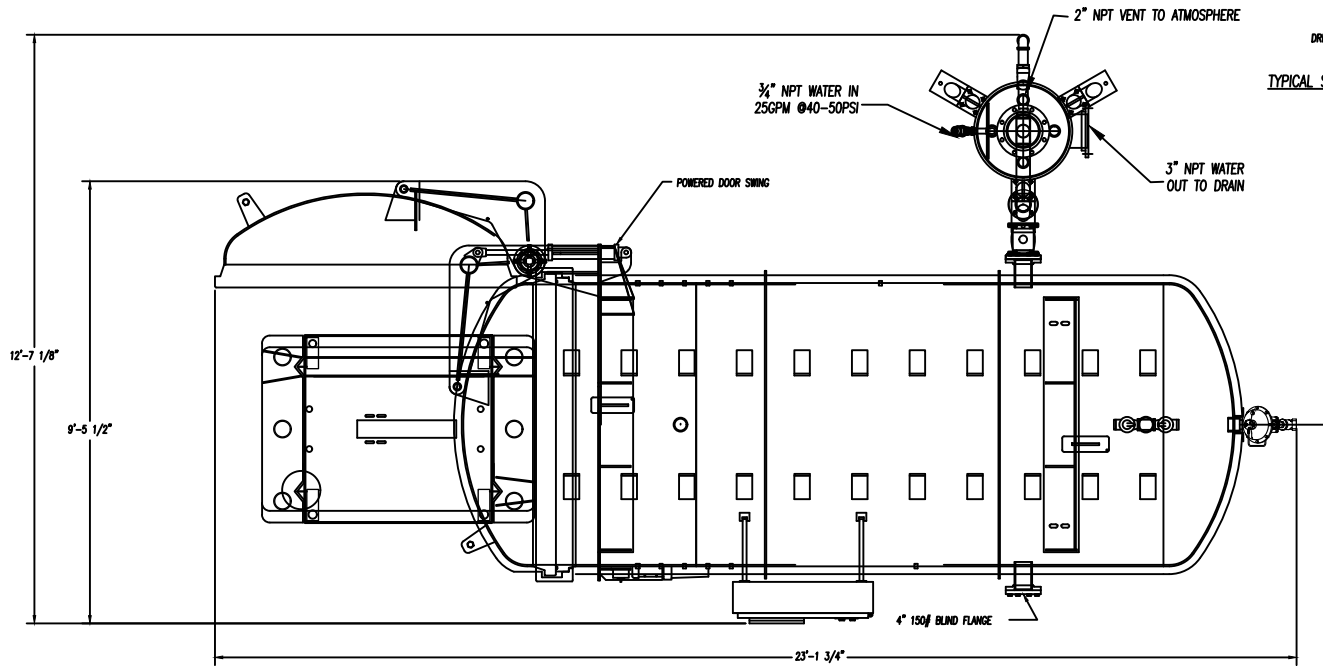
947-500D
AUTOCLAVE BIN (3 PER LOAD)



DOOR NOT SHOWN FOR CLARITY



TYPICAL STEAM PIPING



UNLESS OTHERWISE INDICATED, TOLERANCES:
X.X = ± 0.025 ANGLES ± 1 DEG.
X.XX = ± 0.010 FRACTIONS ± 1/64
X.XXX = ± 0.005

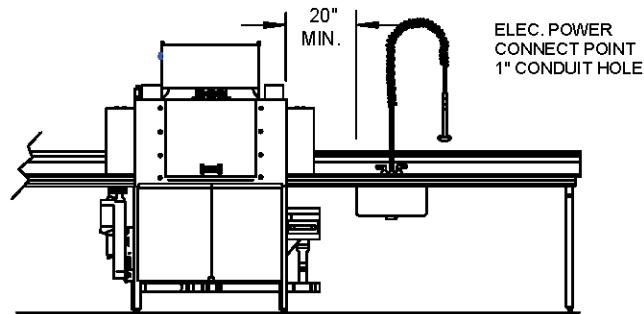
DO NOT SCALE
BREAK ALL SHARP EDGES
REPORT ALL ERRORS TO ENGINEERING DEPT.

REV	DATE	REVISION DESCRIPTION	BY	CHK
-	-	-	-	-

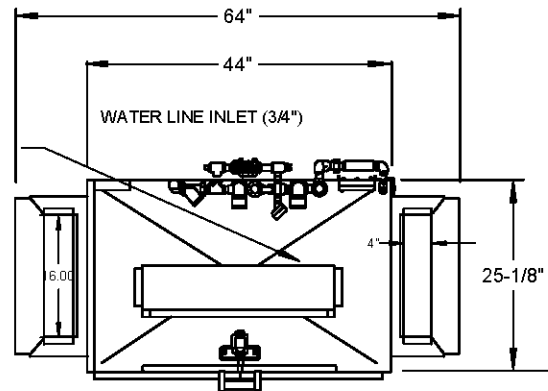
MATERIAL	NO. REQ'D
1	1

BONDTECH CORPORATION		1278 HWY. 401 SOMERSET, KY 42503 USA
DRN. RCC	DATE: 8-25-20	
CHK.	APP.	SCALE:
TERRABELLA SAMPLE BIT6X13 INSTALL		
NO. TERRABELLA SAMPLE BIT6X13 INSTALL		REV. 0

RIGHT FEED (W/O VENT OPTION)



TOP VIEW OF LEFT FEED



IMPORTANT NOTES

Both clean and soiled tables are to be bolted to the dishmachine with the 1/4-20x1/2" bolts and nuts provided.

Leaks cause potential problems in electrical and mechanical areas under the machine.

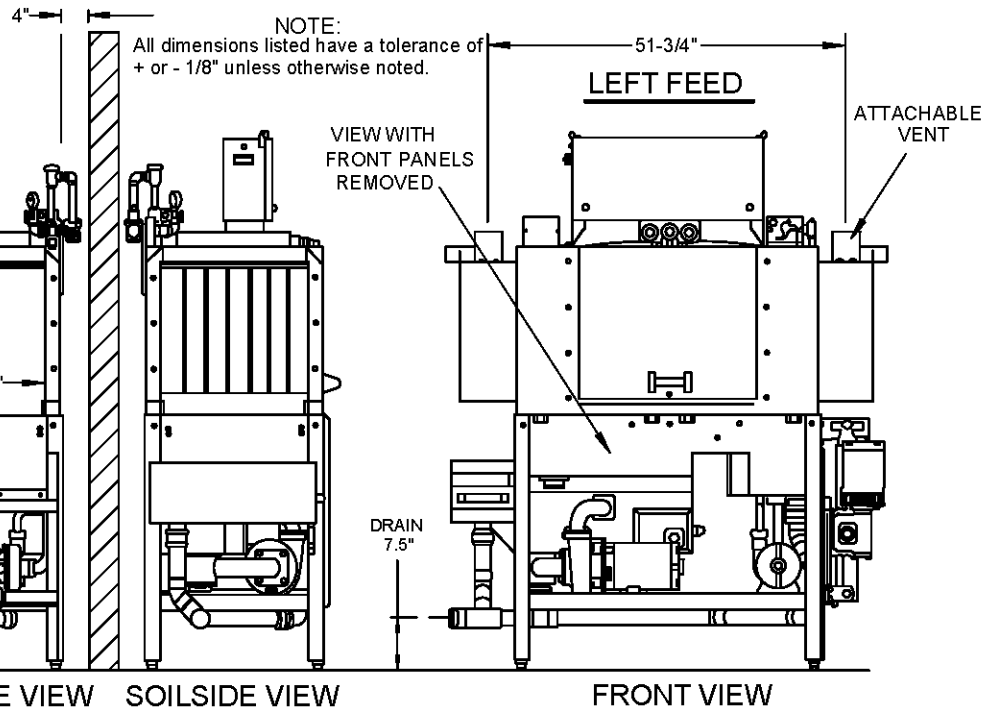
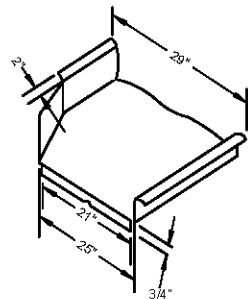
Quick drains (table scuppers) are not compatible with stage type conveyor dishmachines.

Scrap sinks shall be no closer than 20" minimum from the dishmachine end of table.

The clean exit table should be at least 72" straight for efficient conveyor operation.

Electrical and plumbing connects must be made by a qualified service person who will comply with all appropriate state and local health, electrical, plumbing, and safety codes.

*Manufacturer reserves the right to modify these specifications in compliance with regulatory agencies and manufacturing expediency.



Model ADC-44 Specifications

ADC-44

FAMILY MODELS (left or right feed)

	ADC-44 HOT TEMP	ADC-44 CHEMICAL
NSF RATED CAPACITY	244 rack/hr	244 rack/hr
CONVEYOR SPEED	6.8 ft/min or 2.07 meters	6.8 ft/min or 2.07 meters
WATER CONSUMPTION	.49 gal/rack or 1.8 liters	.49 gal/rack or 1.8 liters
TOTAL GAL. PER HR.	120 gph or 454.2 liters	120 gph or 454.2 liters
FINAL RINSE TEMP (20 psi)	180 F / 82.2C	120 F / 48.8 C
SANITIZER	180 WATER	50ppm CHLORINE
ELECTRICAL POWER SUPPLY	208/240V, 3PH, 60 AMP, 60 HZ <small>3 Phase installation requires 6 gauge wires, a suitable ground, and a clean circuit.</small>	
MOTOR RATINGS	3HP WASH, 1/3HP RINSE 1/3HP CONVEYOR	
HEATER RATINGS	12 KW WASH, 2.25 KW RINSE	
RACK SIZE	STANDARD 19.75" X 19.75" or 50.2 x 50.2 cm	
ACCESS DOOR CLEARANCE	15" X 24.5" 38.1 X 62.2 cm	
RACK CLEARANCE (Through Machine)	19.25" x 20.75" 48.9 x 52.7 cm	
WATER INLET	(3/4") F.P.T.	
DRAIN SIZE	(2") F.P.T.	
HEIGHT (with door open)	81.25" or 206.3 cm with control box cover open	
WIDTH (overall)	64" 162.5 cm	
WIDTH, TABLE TO TABLE	44" 111.7 cm	
DEPTH	30" 76.2 cm	
SHIPPING WEIGHT	760 POUNDS 344.7 kg	
SHIPPING VOLUME (crated)	117 CU. FT. 3.31 cu meters	

Protocol for the Evaluation of Bactericidal Activity of Hard, Non-porous Copper Containing Surface Products

(01/29/16)

I. Overview

This document describes a testing protocol recommended by the Environmental Protection Agency (EPA) to support the registration of hard non-porous copper containing surface products with non-food contact surface sanitizer claims. The following items summarize the approach employed in this protocol to support these product claims:

- A detailed product characterization is recommended to provide information on the product's physical durability and chemical stability as it relates to the proposed use patterns. The durability assessment includes an eight week abrasion and chemical exposure process.
- Efficacy testing involves the evaluation of two product production lots against *Staphylococcus aureus* and *Pseudomonas aeruginosa*, with the test carriers from one of these lots having undergone the abrasion and chemical exposure process. The stainless steel control carriers do not receive the abrasion and chemical exposure.
- An effective product is expected to achieve a 3 log₁₀ reduction (LR) in viable bacteria (compared to the stainless steel control) for each microbe within a 1 hr contact period. Additional details on the performance standard are described in the Product Performance Data section.
- This protocol is designed to address sanitizer claims for hard non-porous copper containing surface products including a claim for “continuous reduction” of bacteria.
- All testing should be conducted under Good Laboratory Practice Standards.
- Contact times less than 1 hour may be deemed appropriate upon consultation with EPA.
- Note that this protocol is applicable to hard non-porous copper containing surface products that are intended for indoor use only. Applicants interested in pursuing registrations with outdoor uses or for porous copper-containing surface products should consult with the EPA regarding protocol development and testing to support these uses.
- This protocol has been established for use with copper containing surface products; however, upon consultation with EPA, the protocol may also be appropriate for testing other solid, non-food contact surfaces for antimicrobial activity.
- Efficacy test results will be used to determine the sanitizing activity of the hard non-

porous copper containing surface products by comparing the reduction in viable bacteria on product carriers to the stainless steel control carriers.

- If alterations to this protocol are deemed necessary by an applicant, the modified test protocol should be submitted to the EPA for review in advance of data generation with all requested changes to the procedure clearly identified
- Product performance testing should be conducted on two production lots; one lot with sets of exposed carriers and the second lot with only unexposed carriers. The term “exposed” refers to carriers subjected to the physical and chemical treatment, while “unexposed” carriers refers to those not subjected to the physical and chemical treatment. Table 1 provides an overview of the carrier testing requirements.

Table 1. Carrier distribution for testing of copper-containing surface products

Product Lot	Product Carriers per Test Microbe*	Control Carriers per Test Microbe*
Lot 1	15 exposed carriers (5 for each of three chemical solutions)	3 unexposed product carriers and 3 unexposed stainless steel carriers
Lot 2	5 unexposed carriers	3 unexposed stainless steel carriers

*Two microbes are evaluated for determining product efficacy (see Section IV. B)

** Product carriers exposed to abrasion and chemical solutions

***Product carriers not exposed to abrasion or chemical solutions

II. Product Characterization

Since both the physical durability and chemical stability of a hard non-porous antimicrobial product are critical to the level of efficacy performance over time, a profile of certain product characteristics should be submitted in support of registration. This section describes information that should be addressed in the product characterization submission. The information provided in this submission should pertain to the specific product and product components (as identified in the Confidential Statement of Formula), including all proposed formulation types and potential product variations. Attributes should include:

1. Define all product manufacturing and application processes, product compositions/formulations, and proposed product use patterns/use sites. For products that involve the application of a copper-containing material to a non-copper substrate for the purpose of forming a copper matrix (either pre- or post-sale), describe each type of substrate material in detail that is proposed for use with the product. If the product label proposes use with metal substrates, a discussion of metal substrate

compatibility with the copper containing surface product is recommended.

2. Describe the potential for physical disruption of the product surface (e.g., cracking, peeling, and chipping) resulting from normal use in relation to the proposed use patterns. The results of standardized surface hardness testing would be relevant information for most hard surface products. Describe the expected duration of use after product application/installation, and the potential for atypical physical or chemical challenges that could result from any of the proposed uses. This information may be documented either as descriptive (qualitative) observations and/or as quantitative measurements.
3. Describe the product surface characteristics including the thickness of the surface layer (if applicable), typical surface morphology, distribution of copper in the matrix and any intentionally manufactured features (e.g., gloss, matte). If nanostructures/nanomaterials are known to be present or are likely to be present on the product surface, a thorough description of these characteristics or components should be provided.

III. Abrasion and Chemical Exposure Process Overview

As noted above, this protocol includes a product assessment of the effects of mechanical abrasion and of exposure to certain chemical solutions. The abrasion and chemical exposure process is intended to represent a degree of normal and relevant physical wear, as well as reproduce potential effects resulting from repeated exposure of copper-containing surfaces to three different biocidal cleaning materials (chemical solutions). A single abrasion and chemical exposure treatment involves six passes of an abrasive material against the product surface, followed by a 10 minute exposure of the product surface to a specific solution. These exposure treatments are to be performed on one production lot five times a day and five days a week for eight consecutive weeks, resulting in a total of 200 total exposures (abrasion/chemical).

Specifically, the assessment involves the use of 15 copper product test carriers, 3 copper product control carriers, and 3 stainless steel control carriers. The copper coupons should be derived from the same production lot. For the controls, the copper product control carriers and the stainless steel control carriers do not receive the abrasion and chemical solution exposures. The fifteen copper product test carriers are subjected to mechanical surface abrasion followed by exposure to one of three different chemical solutions (solutions A, B or C) in groups of 5 (see Table 2). Following the chemical exposure, the exposed carriers should be rinsed thoroughly with deionized or distilled water, air-dried and stored at room temperature until the next exposure cycle. Each group of 5 product test carriers should be uniquely identified and exposed to the same chemical solution for each exposure treatment during the 8 week process.

Table 2. Carrier exposure to chemicals

Product Lot	<u>Solution A</u> Sodium Hypochlorite (Bleach)	<u>Solution B</u> Hydrogen peroxide	<u>Solution C</u> EDTA/ phosphoric acid	Controls (do not receive abrasion and chemical exposures)
Lot 1	5 test carriers	5 test carriers	5 test carriers	3 copper product carriers and 3 stainless steel carriers

Product performance testing should be initiated within 3 days of completion of the 8 week exposure regimen. All carrier storage conditions (temperature and humidity range) should be included in the study report. As indicated in Section I, two groups of 15 product test carriers (one 15-carrier group per microbe) that have undergone the abrasion and chemical exposure process and 6 control carriers (21 total carriers) are evaluated for efficacy according to the laboratory methodology identified in Section IV. Each group (2) of 21 carriers is tested against one of the two test microbes identified in the method.

Using a second production lot of copper, testing should be conducted on 5 unexposed product test carriers and 3 unexposed stainless steel control carriers.

Identification of product test carriers by the type of chemical solution used during the exposure process should be maintained throughout product performance testing.

A. Abrasion and Chemical Exposure Treatment Process

Carriers should be selected and prepared as described in Section IV (A) of this document for the abrasion and chemical exposure process. Note that all copper product test and control carriers must be cut from the relevant hard, non-porous copper-containing materials anticipated for final production. Individual carriers should be oriented with the copper treated surface side-up (i.e., the sanitizing copper-containing surface); this orientation should be maintained throughout the exposure treatment. All test and control carriers should be maintained under comparable conditions during each abrasion and chemical solution exposure treatment. The exposure treatment of the test carriers should be performed at room temperature.

The abrasion and chemical exposure treatment should be performed 5 times per day with each at least 30 min between each exposure treatment. As indicated, these daily exposure treatments should be performed 5 days per week for 8 consecutive weeks, after which a visual inspection of all carrier surfaces should be performed. Any visual changes to the product test carrier surfaces in comparison to the unexposed product controls (such as discoloration, pitting or the presence of scratches) should be recorded, photographed, and

included in the final study report submitted to EPA.

1. Chemical Solution Preparation

The treatment solutions to be applied during the chemical exposure process are identified below. All solutions should be clearly labeled, and new solutions should be prepared each day of treatment.

- **Solution A:** Solution A is a 3000 ± 150 ppm sodium hypochlorite solution (e.g., Sigma-Aldrich reagent grade sodium hypochlorite) prepared in distilled or deionized water. All details related to the source product and dilution process (if applicable) should be included in the study report. The final concentration of the solution should be verified and recorded.
- **Solution B:** Solution B should contain hydrogen peroxide (between 3.0% and 6.0%) and ethaneperoxoic acid as active ingredients. This solution should be an EPA-registered antimicrobial pesticide product that allows spray application to hard surfaces. The solution concentration for the ethaneperoxoic acid component is not limited to a defined range, but should be indicated in the study report. All details related to the product selected and the dilution process (if applicable) should be included in the study report.
- **Solution C:** Solution C should contain between 5.0% and 5.2% ethylenediamine-tetraacetic acid, tetrasodium salt (CAS# 64-02-8) and phosphoric acid between 8.0% and 8.3%. Distilled or deionized water should be used as the diluent.

2. Conducting the Abrasion Treatment

- The abrasion exposure should be performed with a Gardco, Model D10V abrasion tester. A 3M Scotch-brite, General Purpose Hand Pad 7447 should be used as the abrasive material. Attach the pad to the abrasion tester as specified in the product use manual. Replace pad daily.
- The weight of the fully assembled abrasion boat (Gardco WA-2225) should be between 1000 g and 1085 g.
- One abrasion cycle should consist of six (6) passes of the abrasive pad against the carrier test surface (the pad should contact the carrier surface six times).
- The abrasion tester speed should be set between 2.25 to 2.50 for a total surface contact time of approximately 6 seconds per treatment.
- Following the abrasion cycle, the carriers should be wiped with a clean, dry cloth and subjected to the chemical solution.

- Proceed to the chemical solution treatment.

3. Conducting the Chemical Solution Treatment

- After preparing the chemical solutions (solutions A, B and C), place the test carriers, treatment (copper surface) surface up, on a flat surface (e.g., inside a Petri dish). Apply each chemical solution to 5 test carriers by spraying two to three pumps at 6-8 inches of the appropriate solution to each carrier surface (i.e., enough liquid to cover the carrier surface). Utilize a trigger sprayer such as a Quorpak trigger spray bottle (VWR part number 16344-101) or similar device.
- Allow each test carrier to be in contact with the appropriate chemical solution for approximately 10 min at room temperature.
- After the 10 min contact period, rinse thoroughly with distilled or deionized water, allow to air dry, and store at room temperature.
- Following the 200 abrasion-chemical exposures, rinse all carriers thoroughly with distilled or deionized water, allow to air dry, and store at room temperature. Proceed to product performance testing. Product performance testing should be initiated within 3 days of the final abrasion-chemical exposure process.

IV. Test Methodology

A. Carriers.

For testing of two microbes from one production lot, prepare 30 *exposed* product test carriers (from copper-containing product), six (6) *unexposed* product control carriers, and 6 unexposed stainless steel control carriers; and from a second production lot, prepare ten (10) *unexposed* product test carriers and six (6) stainless steel control carriers. Extra carriers should be prepared for sterility assessment. The steel stock sheets used for the stainless steel control carriers should physically match the product carriers as closely as possible with respect to thickness, degree of polish and/or brushed surface machining, etc. The composition of the copper-containing test carriers must be representative of the final product and meet the specifications for the target chemistry formulation. The chemical composition of the treated test product carriers must be documented.

1. Product test material and stainless steel stock material sheets should be die/machine cut into individual approximate 1in × 1in square carriers in similar fashion to minimize variation in size and cut edge artifacts.
2. Each carrier should be physically screened to insure uniformity. Carriers with visible surface or edge abnormalities (e.g., corrosion/rust, chipping, gouges or deep striations, etc.) should be discarded. *Note:* The screening should be conducted prior to the abrasion/chemical exposure.
3. Soak physically screened carriers in a suitable detergent solution (e.g., Liquinox) for 2-4 hr to degrease and then rinse thoroughly in distilled or deionized water. Gently wipe with a clean lint free cloth (e.g., KIMTECH PURE W4 Dry Wipers) and allow to completely dry. The rinsing should result in a surface free of residual detergent

without any residual antimicrobial properties.

4. To prepare carriers for testing, immerse in 95-98% ethanol for 5-10 min to decontaminate. Using sterile forceps, remove individual carriers and place face up in matted, pre-sterilized Petri dishes (one carrier per dish). Allow carriers to dry in a Biological Safety Cabinet with lid open. Flaming, autoclaving, or exposure to UV radiation are not desirable techniques for sterilizing coupons and may alter the antimicrobial properties of the treated surfaces. Individual carriers should be oriented with the treated (i.e., copper surface) up; this orientation should be maintained. Handle carriers aseptically.
5. To monitor the occurrence of microbial contamination, randomly select a control and treated carrier from each batch and incubate in appropriate growth medium as a sterility control. No growth is the desired outcome.
6. Provide details of physical screening and sterility check along with vendor or source in the final report; coupon thickness and degree of surface brush or polish should also be reported.
7. Use cleaned decontaminated carriers within one week of preparation.
8. Copper and stainless steel coupons are considered single use.
9. Production lot (batch) identity must be maintained throughout the testing process.
10. Note: If a copper-containing material is applied (e.g., spray application) directly to the surface of a porous or non-porous substrate to form the “antimicrobial product”, then the application process and characteristics of the final deposition (e.g., thickness of copper material and the substrate) must be fully described and documented in the submission. The test carriers must be representative of the anticipated final product.

B. Test Cultures. The test microbes are *Staphylococcus aureus* (ATCC 6538) and *Pseudomonas aeruginosa* (ATCC 15442).

- a. Stock Cultures. Initiate new stock cultures from lyophilized cultures from ATCC at least every 18 months. Open ampule of freeze dried organism per manufacturer's instructions.
- b. Using a tube containing 5-6 mL of tryptic soy broth (TSB), aseptically withdraw 0.5 to 1.0 mL and rehydrate the lyophilized culture. Aseptically transfer the entire rehydrated pellet back into the original tube of broth. Mix thoroughly. Incubate broth culture at $36 \pm 1^\circ\text{C}$ for 24 ± 2 hours.
- c. After incubation, streak a loopful of the suspension on tryptic soy agar (TSA) to obtain isolated colonies. Incubate the plates for 18-24 h at $36 \pm 1^\circ\text{C}$.
- d. Select 3-5 isolated colonies of the test organism and re-suspend in 1 mL of TSB. For *S. aureus*, select only golden yellow colonies. Multiple phenotypes are present for *P. aeruginosa* – the stock culture should be representative of all phenotypes present on the streak isolation plate. Spread plate 0.1 mL of the suspension on each of 6-10 TSA plates. Incubate the plates for 18-24 h at $36 \pm 1^\circ\text{C}$.
- e. Following the incubation of the agar plates, place approximately 5 mL sterile cryoprotectant solution on the surface of each plate. Re-suspend the

growth in the cryoprotectant solution using a sterile spreader without damaging the agar surface. Aspirate the suspension from the plate with a pipette and place it in a sterile vessel large enough to hold about 30 mL. Repeat the growth harvesting procedure with the remaining plates and continue adding the suspension to the vessel (more than 1 tube may be used if necessary). Mix the contents of the vessel(s) thoroughly; if more than 1 vessel is used, pool the vessels prior to aliquoting culture. Immediately after mixing, dispense 0.5-1 mL aliquots of the harvested suspension into cryovials; these represent the frozen stock cultures.

- f. Store the cryovials at $-70 \pm 5^{\circ}\text{C}$ for a maximum 18 months then reinitiate with a new lyophilized culture.
- g. Conduct Quality Control check of the pooled culture concurrently with freezing. For example, streak a loopful on a blood agar plate, and selective media such as mannitol salt agar (MSA) and Cetrimide. Incubate all plates at $36 \pm 1^{\circ}\text{C}$ for 24 ± 2 hours. Record the colony morphology as observed on the blood agar plates and selective media plates (including the absence of growth). Perform a Gram stain from growth taken from the blood agar plates and observe the Gram reaction by using bright field microscopy at $1000\times$ magnification (oil immersion).

Note: Alternative preparation procedures for stock and test cultures may be used for test organisms not mentioned herein; however, the methodology must be clearly specified in the study protocol, and approved by EPA in advance.

2) Test Cultures

- a. For *S. aureus*, defrost a single stock culture cryovial at room temperature and briefly vortex to mix. Each cryovial should be single use only. Add 10 μL of the thawed stock to a tube containing 10 mL of TSB and then vortex to mix. Incubate at $36 \pm 1^{\circ}\text{C}$ for 18-24 hrs. Following incubation, use the broth culture to prepare a final test suspension. Briefly vortex the culture prior to use.
 - b. For *P. aeruginosa*, defrost a single cryovial at room temperature and briefly vortex to mix. Each cryovial should be single use only. Add 10 μL of the thawed stock to a tube containing 10 mL TSB and then vortex to mix. Incubate at $36 \pm 1^{\circ}\text{C}$ for 18-24 hr. Inspect culture prior to use. Remove visible pellicle on surface of medium and around associated interior surfaces of the tube by pipetting or with vacuum suction. Using a serological pipette, withdraw the remaining broth culture (approx. 7-8 mL), avoiding any sediment on the bottom of the tube, and transfer to a new tube. Following removal of pellicle, use the broth culture to prepare a final test suspension. Briefly vortex the culture prior to use.
3. Dilute in Phosphate Buffered Saline (PBS) or concentrate the culture appropriately to achieve the target carrier counts (4-5 logs/carrier). Centrifuge the 18-24 h broth cultures to achieve the desired level of viable cells on the dried carrier. Centrifuge at $\sim 5,000\text{ g}_\text{N}$ for 20 ± 5 min and re-suspend the pellet in 10 mL PBS. Note: Remove the

supernatant without disrupting the pellet. For *S. aureus*, disrupt the pellet using vortexing or repetitive tapping/striking against a hard surface to disaggregate the pellet completely prior to re-suspending it in 10 mL. If necessary, add 1 mL of PBS to the pellet to aid in the disaggregation.

4. Purity of the final test cultures (with soil load) should be determined by streak isolation on TSA with 5% sheep's blood, or other appropriate plating medium, incubate ($36 \pm 1^\circ\text{C}$ for 48 ± 4 hr), examine for purity.
5. It is recommended that the titer of the final test culture (with soil load) be determined for informational purposes. Plate dilutions on TSA plates (or TSA with 5% sheep's blood) or other appropriate medium and incubate ($36 \pm 1^\circ\text{C}$ for 24-48 hr) and enumerate. Count the number of colonies to determine the number of organisms per mL (i.e., CFU/mL) of inoculum present at the start of the test.

C. Soil Load (three-part).

1. The recommended standard soil load to be incorporated in the test suspension is a mixture of the following stock solutions in PBS:
 - a. Bovine serum albumin (BSA): Add 0.5 g BSA to 10 mL of PBS, mix and pass through a $0.2\ \mu\text{m}$ pore diameter membrane filter, aliquot and store at $-20 \pm 5^\circ\text{C}$.
 - b. Yeast Extract: Add 0.5 g yeast extract to 10 mL of PBS, mix, and pass through a $0.2\ \mu\text{m}$ pore diameter membrane filter, aliquot and store at $-20 \pm 5^\circ\text{C}$.
 - c. Mucin: Add 0.04 g mucin (bovine or porcine) to 10 mL of PBS, mix thoroughly until dissolved, and autoclave (15 minutes at 121°C), aliquot and store at $-20 \pm 5^\circ\text{C}$.
2. The stock solutions of the soil load are single use only and should not be refrozen once thawed; store up to one year at $-20 \pm 5^\circ\text{C}$.
3. Vortex the test suspension for 10-30 seconds or until re-suspended (no more than 60 seconds) to evenly distribute the cells.
4. To obtain 500 μL of the final test suspension with soil load, vortex each component and combine the following (or appropriate ratio):
 - a. 25 μL BSA stock
 - b. 35 μL yeast extract stock
 - c. 100 μL mucin stock
 - d. 340 μL microbial test suspension
5. Following the addition of the soil load, vortex the final test suspension for 10 seconds and immediately prior to use.

D. Efficacy Test Procedure

1. Evaluate fifteen (15) exposed product test carriers (from one production lot) with three (3) stainless steel control carriers and three (3) unexposed product control carriers against each test organism; and from the second production lot test five (5) unexposed product test carriers and three (3) unexposed stainless steel control carriers against each test organism.
2. Control carriers should be evaluated concurrently with the test carriers.
3. The exposure (contact time) of the inoculum to the carrier surface begins immediately upon inoculation; therefore, the contact time begins when final test suspension (with soil load) is deposited onto a test carrier.

4. Record the initiation of the contact time and inoculate each carrier at staggered intervals with 20 μL of final test culture using a calibrated pipette (a positive displacement pipette is desirable).
5. Spread the inoculum to within approximately 1/8 inch of the edge of each carrier, using a sterile transfer loop or the pipette tip, for example. Use an appropriate interval (e.g., 30 sec) to allow sufficient time for careful spreading of the inoculum.
6. The contact time begins immediately following carrier inoculation. Record the lab temperature and relative humidity during the one hour exposure period.
7. Allow carriers to remain in a horizontal position under ambient conditions with the lid on the Petri plate for 60 ± 5 min.
8. Following the exposure period, sequentially and aseptically transfer carriers to 20 mL of the appropriate neutralizer solution – this represents the 10^0 dilution.
9. Record the exposure period end time when the treated and control carriers (or a set of carriers) are placed into the neutralizer solution.
10. After all the carriers have been transferred into the neutralizer, sonicate for 5 min ± 30 secs to suspend any survivors from the carriers, swirl to mix.
11. Within 30 min of sonication, prepare serial dilutions of the neutralized solution (10^0 dilution) out to 10^{-4} for the treated carriers. Transfer the control carriers to neutralizing subculture media and sonicate as for test carriers. Prepare serial dilutions of the neutralizing subculture medium and plate the appropriate dilutions in duplicate to yield countable numbers (up to 300 colonies per plate). Incubate and enumerate with the treated carrier plates.
12. Plate 0.1 mL in duplicate using spread plating or pour plating technique on TSA plates (or TSA with 5% sheep blood).
13. Incubate the plates at $36 \pm 1^\circ\text{C}$ for 48 ± 4 hr.
14. Following incubation, count colonies and record the results.

E. Study Controls

1. Purity Control. Perform a “streak plate for isolation” on TSA plates (or TSA with 5% sheep blood) for each final test culture, and following incubation at $36 \pm 1^\circ\text{C}$ for 48 ± 4 hr examine in order to confirm the presence of a pure culture. The acceptance criterion for this study control is a pure culture demonstrating colony morphology typical of the test organism.
2. Soil Load Sterility Control. Streak plate or add a sample of the three part soil load to a growth medium, incubate at $36 \pm 1^\circ\text{C}$ for 48 ± 4 hr and visually examine for growth. The acceptance criterion for this study control is lack of growth.
3. Carrier Sterility Control. Add a representative un-inoculated test and stainless steel control carrier to the neutralizing subculture medium. Incubate at $36 \pm 1^\circ\text{C}$ for 48 ± 4 hr and examine for growth in the subculture medium containing each carrier. The desired outcome for this study control is lack of growth.
4. Neutralizer Sterility Control. Incubate at $36 \pm 1^\circ\text{C}$ for 48 ± 4 hr an unused tube of neutralizing solution and visually examine for growth. If the neutralizing solution does not support growth, then plate 1.0 mL or 0.1 mL using spread plating or pour plating technique on TSA plates (or TSA with 5% sheep blood). The acceptance criterion for this study control is lack of growth.

F. Neutralization Confirmation

1. Perform a neutralization confirmation control to demonstrate the neutralizer's ability to inactivate the test carrier. This should be conducted with both test microbes prior to the efficacy evaluation and reported separately. The neutralization of the test carriers is confirmed by using unexposed test and unexposed stainless steel control carriers and the neutralizer as in the test procedure.
2. Add a test carrier (one per production lot) to a tube of neutralizer solution (20 mL).
3. Hold the carrier in the neutralizing solution for approximately 10 min.
4. Add a 1.0 ml aliquot of a diluted suspension of the test organism yielding 10-100 CFU/0.1 ml of neutralizing subculture medium to the neutralizer, mix well. Hold for approximately 10 min. Duplicate plate 0.1 mL aliquots of this mixed solution using spread plating or pour plating technique on TSA plates (or TSA with 5% sheep blood).
5. A numbers control (provides baseline level of CFU for comparative purposes) is performed utilizing stainless steel control carriers; process as indicated for the test carriers.
6. The resulting plates are incubated as in the test and enumerated. The acceptance criterion for this study is the difference between the treated and control counts should be $\leq 50\%$.

G. Product Performance Data

Impact of Abrasion and Chemical Exposure – Production Lot 1.

- Comparative visual observations should be used to identify any deleterious effects caused by the abrasion and chemical exposure for production lot 1; report findings in the study report.
- The effects of the abrasion and chemical exposure on mean log reduction should be presented for production lot 1 – this is based on the mean log reduction values for the *exposed* product carriers compared to the mean log reduction values for *unexposed* product carriers. The mean control counts associated with the stainless steel control carriers are used for the log reduction calculations.
- The mean log reduction values (i.e., per abrasion/chemical treatment per microbe) for the *exposed* product carriers compared to the *unexposed* product carriers should be within 0.5 log; in addition, the mean log reduction for the *exposed* product carriers should not be less than the performance standard of 3 logs for any abrasion/chemical treatment group for either of the test microbes.

Production Lot 2. Mean log reduction data for production lot 2 should be calculated and presented by comparing viable counts for the 5 product carriers and 3 stainless steel control carriers.

Stainless Steel Control Counts Acceptance Criteria. The acceptance criterion for the control carriers is 4-5 logs CFU/carrier. All study controls must perform according to the criteria detailed in the study controls description section.

Product Efficacy. For the test substance to be considered a sanitizer, a $\geq 99.9\%$ reduction (≥ 3 log reduction) in the numbers of each test microbe (the difference between product test carriers and the stainless steel control carriers) must be demonstrated following the exposure time (60 min) for each production lot.

H. Calculations/Data Analysis

- Calculate the mean log reduction in viable cells for each microbe for the following treatments: 1) *exposed* product carriers (per chemical) for production lot 1, 2) *unexposed* product control carriers (one 3-carrier set per microbe) for production lot 1, and 3) product carriers for production lot 2. Log reduction values are calculated based on the difference in log densities associated with the product test carriers compared to the stainless steel control carriers.

1. For determining the number of viable bacteria per carrier:

$$\text{CFU/carrier} = \frac{(\text{average number colonies/plate @ dilution}) \times (\text{dilution factor}) \times (\text{volume of neutralizer})}{(\text{Volume plated})}$$

2. For determining the geometric mean number of organisms surviving on three control carriers (unexposed copper or stainless steel) where X equals CFU/control carrier:

$$\text{Geometric Mean} = \text{Antilog of } \frac{\text{Log}_{10}X_1 + \text{Log}_{10}X_2 + \text{Log}_{10}X_3}{3}$$

3. Example: For determining the geometric mean of number of organisms surviving on five product test carriers where Y equals CFU/test carrier:

$$\text{Geometric Mean} = \text{Antilog of } \frac{\text{Log}_{10}Y_1 + \text{Log}_{10}Y_2 + \text{Log}_{10}Y_3 + \text{Log}_{10}Y_4 + \text{Log}_{10}Y_5}{5}$$

(Adjust equation 3 above accordingly for three carriers for the unexposed product test carriers for lot 1)

4. % reduction = $[(a-b)/a] \times 100$

Where:

a = geometric mean of the number of organisms surviving on the inoculated control carriers

b = geometric mean of the number of organisms surviving on the test carriers.

5. Log_{10} Difference = (Log_{10} Stainless Steel Numbers Control) – (Log_{10} Product Test carriers)

V. Product Labeling

A. Label Claims

1. The following label claim is supported by the protocol:

“This surface kills at least 99.9% of bacteria after a 1 hour contact time when maintained in accordance with the product care and use directions.”

2. Claims are limited to indoor use of hard, non-porous copper containing surface products.

B. Required Label Language

1. Care and Use of Antimicrobial Copper Containing Surface Products in Health Care Facilities:

“Product Care and Use: Antimicrobial copper containing surface products must be cleaned and disinfected according to standard practice. Health care facilities must maintain the product in accordance with infection control guidelines; users must continue to follow all current infection control practices, including those practices related to disinfection of environmental surfaces. This copper surface material has been shown to reduce microbial contamination, but does not necessarily prevent cross contamination. This product must not be waxed, painted, lacquered, varnished, or otherwise coated by any material.”

2. Care and Use of Antimicrobial Copper Containing Surface Products for Non-Health Care Facilities:

“Product Care and Use: Routine cleaning to remove dirt and filth is necessary for standard hygiene and to assure the effective antibacterial performance of the antimicrobial copper containing surface products. Cleaning agents typically used for environmental surfaces are permissible. The use of an antimicrobial copper surface does not replace standard good hygienic practices and/or infection control procedures. This product must not be waxed, painted, lacquered, varnished, or otherwise coated by any material.”

ATTACHMENT 24

ADDITIONAL STORAGE AND PROCESSING UNIT CLOSURE COST ITEMS

THIS SECTION IS NOT APPLICABLE

ATTACHMENT 25

CONFIDENTIAL DOCUMENTS

THIS SECTION IS NOT APPLICABLE