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**ENGINEERING AND PROFESSIONAL SERVICES**

November 3, 2016

Mr. Darron Moore
Department of Veterans Affairs Contracts 00504
**Engineering Services – Big Springs, Texas Location**
7201 I-40 West Suite 100
Amarillo TX 79106
Darron.Moore@va.gov

RE: Lead-Based Paint Inspection
Veterans Affairs (VA) Medical Center
300 West Veterans Boulevard, Big Spring, Texas 79720

Building 2

Dear Mr. Moore:

HGS Engineering Inc. (HGS) was retained by Department of Veterans Affairs Contracts 00504 Engineering Services – Big Springs, Texas Location to perform a lead-based paint (LBP) inspection at Building 2. This inspection included a visual observation of suspect coatings for LBP, and use of a handheld RMD LPA-1 X-ray Fluorescent (XRF) Spectrum Analyzer on each testing combination (component/substrate/color) within the accessible interior and exterior of Building 2 to confirm areas of LBP.

## Executive Summary

The lead-based paint survey was conducted on September 14, 2016, by Ms. Trina Mullen (Lead Risk Assessor License Number 2070182) and Mr. Lonnie Lyro, both representing HGS Engineering Inc. (HGS). A portable XRF Analyzer was used to measure lead content in interior and exterior painted surfaces. The inspection was performed in general accordance with the Housing and Urban Development (HUD) and the Occupational Safety & Health Administration's (OSHA's) Lead in Construction. The XRF is a direct read instrument and does not require laboratory analysis. Lead-based paint as defined by HUD, EPA and the Texas Department of State Health Services (DSHS) are paints with a lead concentration of greater than 1.0 milligrams per square centimeter (mg/cm$^2$), 5,000 parts per million (ppm) or 0.5% lead by weight. OSHA's "Lead in Construction Standard" addresses any concentration of lead in paint as Lead Containing Paint (LCP). Results indicate that the following coatings are LBP:

- Metal stair railing (orange and white) at Stair Tower 38
- Metal handrail (red) within Water Treatment Plant 35
- Metal exterior door frame (gray) at the front of the building
- Metal exterior door frames (tan) at the front of the building
- Metal garage door frames (tan) at the front of the building
- Metal brick protection bumpers (tan) at the front of the building
- Metal gutters (tan) at the back of the building

## Sampling and Analytical Procedures

HGS's lead-based paint survey included testing of painted, varnished, or stained surfaces. HGS utilized the PROTEC Instruments RMD LPA-1 XRF Spectrum Analyzer to confirm areas of lead-based paint in

accordance with EPA and OSHA. EPA establishes that lead-based paint is paint that contains more than 1.0 mg/cm2, 5,000 ppm or 0.5% lead by weight. For OSHA compliance purposes, OSHA's "Lead in Construction Standard" (29 CRF 1926.62) addresses any concentration of lead in paint.

HGS performed a total of eighty-four (84) readings utilizing the RMD LPA-1 XRF**.**

The RMD LPA-1 XRF paint analyzer automatically calibrates for different substrates. Therefore, this paint analyzer does not report "inconclusive" test results for some substrates, such as metal surfaces. Paint chip samples are not required. Test results from the XRF Analyzer are tracked in the field by the lead inspector and later tabulated in table format for inclusion in this report.

The RMD LPA-1 XRF Analyzer results are either positive or negative with a numerical value for the lead concentration. The results are in milligrams per square centimeter (mg/cm2).

Calibrations were performed prior to and after testing in accordance with Performance Characteristics Sheets (PCS)

## FINDINGS

A total of eighty-four (84) measurements were taken utilizing the RMD LPA-1 XRF.

The Table below contains the components, which tested positive (greater than 1.0 mg/cm$^2$) for lead-based paint, utilizing the XRF:

**Table 1**
**Veterans Affairs (VA) Medical Center, Building 2 Summary of Lead-Based Paint**

| Sample | Location | Component | Substrate | Color | Lead % |
|---|---|---|---|---|---|
| 2-05 | Stair Tower 38 | Stair Rail | Metal | Orange | 3.5 |
| 2-06 | Stair Tower 38 | Stair Rail | Metal | White | 1.5 |
| 2-31 | Water Treatment Plant 35 | Hand Rail | Metal | Red | 5.2 |
| 2-49 | Exterior Front | Door Frame | Metal | Gray | 1.1 |
| 2-51 | Exterior Front | Door Frame | Metal | Tan | 1.5 |
| 2-52 | Exterior Front | Bumpers | Metal | Tan | >9.9 |
| 2-53 | Exterior Front | Garage Door Frame | Metal | Tan | >9.9 |
| 2-55 | Exterior Front | Door Frame | Metal | Tan | 1.6 |
| 2-56 | Exterior Front | Bumpers | Metal | Tan | >9.9 |
| 2-57 | Exterior Front | Garage Door Frame | Metal | Tan | >9.9 |
| 2-84 | Exterior Back | Gutters | Metal | Tan | >9.9 |

## CONCLUSIONS

Of the eighty-four (84) measurements taken utilizing the RMD LPA-1 XRF, eleven (11) LBPs or coatings were identified. Table 1 is a listing of the identified LBPs within Building 2. A complete listing of those paints and coatings tested within Building 2 is included as an attachment to this report. All paints with a lead content of greater than 0.0 mg/cm$^2$ are considered lead-containing paints (LCP) by OSHA. Locations of LBP are depicted on the drawings included as an attachment to this report.

Lead is a hazardous substance. Its condition, handling and disposal are regulated by Federal, State, and local agencies. Lead-containing materials, LBP and LCP generally do not pose a health risk unless the

material is disturbed or sufficiently deteriorated to produce dust, which may become airborne and inhaled or ingested.

The EPA, HUD, and Texas DSHS Regulations in regard to LBP apply directly to target housing and child occupied facilities. The definition of target housing is any housing constructed prior to 1978, except housing for the elderly or persons with disabilities (unless any child who is less than 6 years of age resides or is expected to reside in such housing) or any zero-bedroom dwelling. The definition of Child Occupied Facility is a building, or portion of a building, constructed prior to 1978, visited regularly by the same child, under 6 years of age, on at least two different days within any week, provided that each day's visit lasts at least 3 hours and the combined weekly visits last at least 6 hours, and the combined annual visits last at least 60 hours. Child-occupied facilities may include, but are not limited to, day care centers, preschools and kindergarten classrooms.

The VA Facility **is not** considered target housing or a child-occupied facility and is therefore not subject to the EPA, HUD, or Texas DSHS Regulations. OSHA considers any amount of lead within paint or coatings to be Lead-Containing Paint (LCP) and is subject to OSHA Lead Standard 1926.62 and state regulations for the disposal of the lead paint.

## RECOMMENDATIONS

If the LCP is going to be affected by future renovations, then all activity associated with the disturbance, handling and disposal of any LCP must comply with the OSHA Lead Standard 1926.62 and state regulations for the disposal of the lead paint.

OSHA requires the contractor to inform its employees of potential lead hazards, based upon the work being performed. The purpose of OSHA's lead construction standard is to reduce the exposure to lead for all construction workers. HGS recommends contractors be informed of the presence of LCP within the facility prior to disturbance. OSHA's standard includes an 8-hour time weighted average (TWA) of 50 micrograms of lead per cubic meter of air ($mg/m^3$) and an action level (regardless of respirator use) of 30 $mg/m^{3.}$ Although the standard emphasizes exposure assessment for individual job tasks, varying levels of worker protection are required of the contractor for certain tasks, including, but not limited to the following activities involving lead-based and lead-containing paint.

- Manual demolition of structures, manual scraping, manual sanding, and use of heat guns where lead-containing coatings or paints are present;
- Abrasive blasting enclosure movement and removal;
- Power tool cleaning;
- Lead burning;
- Using lead-containing mortar or spray painting with lead-containing paint;
- Abrasive blasting, rivet busting, or welding, cutting, or burning on any structure where lead-containing coatings or paint are present;
- Cleanup activities where dry expendable abrasives are used; and
- Any other task the employer believes may cause exposures in excess of the permissible exposure limit (PEL).

The Owner should prohibit the use of torch cutting or heat processes to remove the paint from all surfaces that are within these limits. If abrasive blasting (i.e. sandblasting, etc.) is to be performed, HGS recommends that the appropriate methods of containing the work area and personal protective equipment be utilized (i.e. respirator protection, eye protection, coveralls, etc.).

## LIMITATIONS

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with principles and practices in the fields of environmental science and engineering. The results, findings, conclusions, and recommendations expressed in the report are based only on conditions that were noted during the noted dates of fieldwork. This warranty is in lieu of all other warranties either expressed or implied. This company is not responsible for the independent conclusions, opinions, or recommendations made by others based on the results and designs presented in this report.

The passage of time may result in a change in the environmental characteristics at this site and surrounding properties. This report does not warrant against future operations or conditions, nor does it warrant operations or conditions present of a type or at a location not investigated.

Reasonable effort is made by HGS personnel to locate and sample materials representative of the site structures. However, for any facility, the existence of unique or concealed materials or debris not observed by HGS is a possibility. HGS does not warrant, guarantee or profess to have the ability to locate or identify all concealed hazardous materials at the facility. This report is intended for the sole use of Veterans Affairs (VA). This report is not intended to be utilized as a construction and/or bidding document, nor is this document designed to be used as a remediation or abatement specification. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user.

Any conditions or materials that could not be visually identified on the surface were not inspected and may differ from those conditions or materials noted.

## CLOSING

HGS appreciates the opportunity to be of service to the Department of Veterans Affairs on this project and looks forward to working with you on future assignments. In the meantime, if you have questions or comments regarding the information in this report or if we can be of further assistance, please do not hesitate to contact the undersigned in the HGS Round Rock, Texas office at (512) 366-6806.

Respectfully submitted,

**HGS Engineering, Inc.**

Trina Mullen
Industrial Hygiene Department Manager
Lead Risk Assessor License No. 2070622
Direct Line: +1 512 336 6806
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Tim Thompson
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Anniston, AL 36201
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Attachments: Lead-Based Paint XRF Readings, Big Spring VA, Building 2
Licenses/Certifications
Drawings

# LEAD BASED PAINT XRF READINGS, BIG SPRING VA, BUILDING 2

Lead-Based Paint XRF Readings
Big Spring, VA, Building 2

| Sample | Location | Component | Substrate | Color | Lead % |
|---|---|---|---|---|---|
| 2-01 | Stair Tower 38 | Door - Exterior | Metal | Tan | 0.1 |
| 2-02 | Stair Tower 38 | Door Frame - Exterior | Metal | Tan | 0.2 |
| 2-03 | Stair Tower 38 | Wall D | Brick | White | 0.3 |
| 2-04 | Stair Tower 38 | Stairs | Concrete | Green | 0.1 |
| **2-05** | **Stair Tower 38** | **Stair Rail** | **Metal** | **Orange** | **3.5** |
| **2-06** | **Stair Tower 38** | **Stair Rail** | **Metal** | **White** | **1.5** |
| 2-07 | Stair Tower 38 | Wall A | CMU | Green | 0.2 |
| 2-08 | Stair Tower 38 | Wall B | CMU | Dark Green | 0.0 |
| 2-09 | Water Test Room 37B | Door | Metal | Tan | 0.2 |
| 2-10 | Water Test Room 37B | Door Frame | Metal | Tan | 0.2 |
| 2-11 | Pump Room 37 | Wall A | CMU | White | 0.2 |
| 2-12 | Pump Room 37 | Wall B | CMU | White | 0.1 |
| 2-13 | Pump Room 37 | Wall C | CMU | White | 0.1 |
| 2-14 | Pump Room 37 | Wall D | CMU | White | 0.2 |
| 2-15 | Pump Room 37 | Window Sill | Metal | Tan | 0.1 |
| 2-16 | Pump Room 37 | Window Sash | Metal | Tan | 0.0 |
| 2-17 | Pump Room 37 | Door | Metal | Tan | 0.0 |
| 2-18 | Pump Room 37 | Door Frame | Metal | Light Green | 0.7 |
| 2-19 | Chiller Plant 36 | Wall A | CMU | Tan | 0.2 |
| 2-20 | Chiller Plant 36 | Wall B | CMU | Tan | 0.2 |
| 2-21 | Chiller Plant 36 | Wall C | CMU | Tan | 0.1 |
| 2-22 | Chiller Plant 36 | Wall D | CMU | Tan | 0.1 |
| 2-23 | Chiller Plant 36 | Chiller | Foam | Green | 0.1 |
| 2-24 | Chiller Plant 36 | Floor | Concrete | Maroon | 0.3 |
| 2-25 | Chiller Plant 36 | Door - Exterior | Metal | Tan | 0.4 |
| 2-26 | Chiller Plant 36 | Door Frame - Exterior | Metal | Tan | 0.1 |
| 2-27 | Water Treatment Plant 35 | Wall A | CMU | Tan | 0.2 |
| 2-28 | Water Treatment Plant 35 | Wall C | CMU | Tan | 0.3 |
| 2-29 | Water Treatment Plant 35 | Window Sill | Metal | Tan | 0.1 |
| 2-30 | Water Treatment Plant 35 | Window Sash | Metal | Tan | 0.1 |
| **2-31** | **Water Treatment Plant 35** | **Hand Rail** | **Metal** | **Red** | **5.2** |
| 2-32 | Boiler Plant 33 | Wall A | CMU | White | 0.3 |
| 2-33 | Boiler Plant 33 | Wall B | CMU | White | 0.1 |
| 2-34 | Boiler Plant 33 | Wall C | CMU | White | 0.2 |
| 2-35 | Boiler Plant 33 | Wall D | CMU | White | 0.2 |
| 2-36 | Boiler Plant 33 | Boiler Curb | Concrete | Red | 0.2 |
| 2-37 | Boiler Plant 33 | Boiler Curb | Metal | Green | 0.2 |
| 2-38 | Boiler Plant 33 | Rail | Metal | Red | 0.2 |
| 2-39 | Boiler Plant 33 | Door - Exterior | Metal | Tan | 0.1 |
| 2-40 | Boiler Plant 33 | Door Frame - Exterior | Metal | Tan | 0.1 |
| 2-41 | Office 31 | Wall A | Drywall | White | 0.1 |
| 2-42 | Office 31 | Wall B | Drywall | White | 0.2 |
| 2-43 | Office 31 | Wall C | Drywall | White | 0.2 |
| 2-44 | Office 31 | Wall D | Drywall | White | 0.1 |
| 2-45 | Office 31 | Door | Metal | Tan | 0.1 |

Lead-Based Paint XRF Readings
Big Spring, VA, Building 2

| Sample | Location | Component | Substrate | Color | Lead % |
|---|---|---|---|---|---|
| 2-46 | Office 31 | Door Frame | Metal | Tan | 0.1 |
| 2-47 | Office 31 | Window | Metal | Brown | 0.2 |
| 2-48 | Exterior Front | Door | Metal | Gray | 0.2 |
| **2-49** | **Exterior Front** | **Door Frame** | **Metal** | **Gray** | **1.1** |
| 2-50 | Exterior Front | Door | Metal | Tan | 0.3 |
| **2-51** | **Exterior Front** | **Door Frame** | **Metal** | **Tan** | **1.5** |
| **2-52** | **Exterior Front** | **Bumpers** | **Metal** | **Tan** | **>9.9** |
| **2-53** | **Exterior Front** | **Garage Door Frame** | **Metal** | **Tan** | **>9.9** |
| 2-54 | Exterior Front | Door | Metal | Tan | 0.2 |
| **2-55** | **Exterior Front** | **Door Frame** | **Metal** | **Tan** | **1.6** |
| **2-56** | **Exterior Front** | **Bumpers** | **Metal** | **Tan** | **>9.9** |
| **2-57** | **Exterior Front** | **Garage Door Frame** | **Metal** | **Tan** | **>9.9** |
| 2-58 | Exterior Front | Window Apron | Concrete | Tan | 0.2 |
| 2-59 | Exterior Front | Curb | Concrete | Yellow | 0.0 |
| 2-60 | Exterior Front | Curb | Concrete | Red | 0.3 |
| 2-61 | Exterior Front | Window Apron | Concrete | Tan | 0.2 |
| 2-62 | Warehouse | Wall A | CMU | White | 0.1 |
| 2-63 | Warehouse | Wall B | CMU | White | 0.0 |
| 2-64 | Warehouse | Wall C | CMU | White | 0.1 |
| 2-65 | Warehouse | Wall D | CMU | White | 0.2 |
| 2-66 | Warehouse Restroom | Wall | Ceramic Tile | Light Blue | 0.1 |
| 2-67 | Warehouse Restroom | Floor | Ceramic Tile | Light Blue | 0.1 |
| 2-68 | Warehouse Restroom | Door | Metal | Black | 0.1 |
| 2-69 | Warehouse Restroom | Door Frame | Metal | Black | 0.1 |
| 2-70 | Warehouse | Ladder | Metal | Black | 0.1 |
| 2-71 | Warehouse | Ramp | Metal | Yellow | 0.2 |
| 2-72 | Warehouse | Wall | CMU | White | 0.1 |
| 2-73 | Warehouse | Floor | Concrete | Black | 0.3 |
| 2-74 | Warehouse | Floor | Metal | Gray | 0.5 |
| 2-75 | Warehouse Office | Wall A | Drywall | White | 0.1 |
| 2-76 | Warehouse Office | Wall B | Drywall | White | 0.1 |
| 2-77 | Warehouse Office | Wall C | Drywall | White | 0.2 |
| 2-78 | Warehouse Office | Wall D | Drywall | White | 0.2 |
| 2-79 | Exterior Back | Double Door | Metal | Pink | 0.0 |
| 2-80 | Exterior Back | Door Frame | Metal | Pink | 0.0 |
| 2-81 | Exterior Back | Door Jamb | Metal | Pink | 0.0 |
| 2-82 | Exterior Back | Equipment | Metal | Tan | 0.0 |
| 2-83 | Exterior Back | Pipes | Metal | Green | 0.2 |
| **2-84** | **Exterior Back** | **Gutter** | **Metal** | **Tan** | **>9.9** |

## LICENSES/CERTIFICATIONS

# TEXAS DEPARTMENT OF STATE HEALTH SERVICES

*Be it known that*

**TRINA L MULLEN**

is certified to perform as a

**Lead Risk Assessor**

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

Kirk Cole, Interim
Commissioner of Health

License Number: 2070622

Expiration Date: 7/30/2017

Void After Expiration Date

VOID IF ALTERED

Control Number 7159

NON-TRANSFERABLE

# AEHS, INC.

*(DSHS Lead Training Provider Certification # 20439)*

CERTIFIES THAT

## TRINA MULLEN

**Has successfully completed**

## REFRESHER LEAD INSPECTOR COURSE

IN ACCORDANCE WITH ALL REQUIREMENTS OF DSHS
(Texas Environmental Lead Reduction Rules)

0815-3323D
CERTIFICATE NUMBER

17 August 2015
COURSE COMPLETED

Marcie Sinclair
Marcie Sinclair, Training Director
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4402 Centergate
San Antonio, Texas 78217
(210) 656-9300

Kelly M. Brown
Kelly M. Brown, Instructor
AEHS, Inc.

# AEHS, INC.

*(DSHS Lead Training Provider Certification # 20439)*

CERTIFIES THAT

TRINA MULLEN

**Has successfully completed**

REFRESHER LEAD RISK ASSESSOR COURSE

IN ACCORDANCE WITH ALL REQUIREMENTS OF DSHS
(Texas Environmental Lead Reduction Rules)

0815-3324A
CERTIFICATE NUMBER

18 August 2015
COURSE COMPLETED

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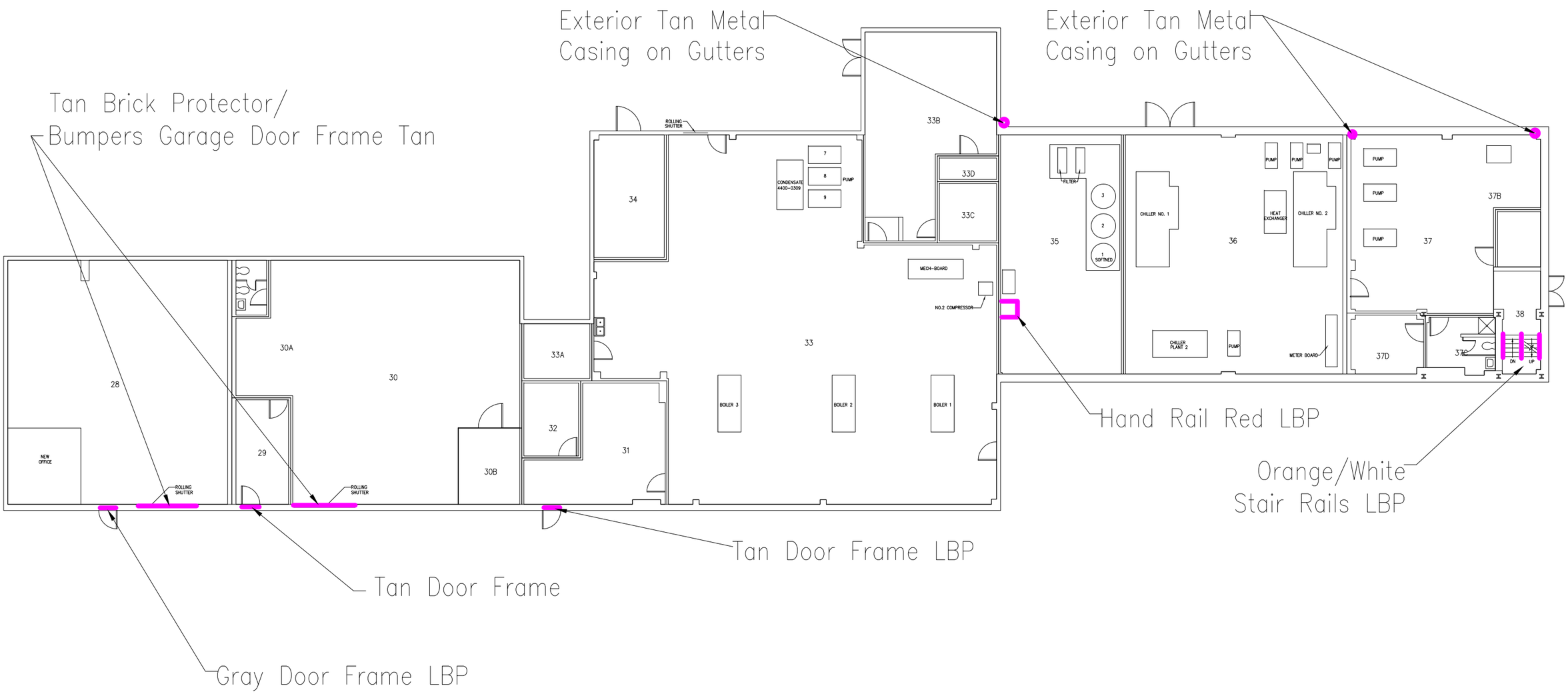
**DRAWINGS**




**LEGEND - HGS Sampled September 2016**

LBP > 1.0 mg/cm²

HGS ENGINEERING

N

Building 2
Veterans Affairs Hospital
300 Veterans Boulevard
Big Spring, Texas 79720

**FIGURE 2-1**

**LBP Locations**

**Inspection Date: September 2016**