Planning Department

823 Rosenberg, Room 401
Galveston, Texas 77550
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planningcounter@cityofgalveston.org

AGENDA
ZONING BOARD OF ADJUSTMENT
REGULAR MEETING
4:00 p.m., Wednesday, October 8, 2014
City Council Chambers, 2nd Floor of City Hall
823 Rosenberg, Galveston, Texas

A. Attendance

B. Conflict of Interest

C. Minutes: September 3, 2014

D. New Business and associated Public Hearing:

14Z-35 (3814 Ave Q) Request for a variance from Section 29-82 of the City of Galveston Zoning Standards detached sign size and illumination requirements in a Multi-Family One (MF-1) zoning district. Property is legally described as the Northwest Block 110 of the Galveston Outlots, in the City and County of Galveston, Texas.
Applicant: Dr. W. Myles Shelton, Galveston College
Property Owner: Galveston College
Case Manager: Ian Knox

14Z-36 (2102 59th Street) Request for a variance from Section 29-89: Storage of Petrochemicals to allow the replacement of an underground storage tank with an above ground storage tank. Property is legally described as Lots 1 through 11 Block 2 Kinkeads Addition, in the City and County of Galveston, Texas.
Applicant: Timothy Mose, Gensler
Property Owner: Ruben Martinez , AT&T/Southwestern Bell Tele. Co
Case Manager: Ian Knox

14Z-37 (1305 Avenue M 1/2) Request for variances from the Galveston Zoning Standards Section 29-65 regarding lot area and width requirements in conjunction with a replat. The Property is legally described as Lot 6, Southeast Block 22, Galveston Outlots, in the City and County of Galveston, Texas.
Applicant: Suzanne Corbin
Property Owner: Athena Housing Partners, LLC
Case Manager: Adriel Montalvan

14Z-38 (5623 Avenue L) Request for a variance from the Galveston Zoning Standards section 29-67 regarding off-street parking requirements in a General Residence (GR) zoning district. Property is legally described as Lot 3, Block 25, in the City and County of Galveston, Texas.
Applicant: Zach Martin, URS
Property Owner: Aurelia Garcia
Case Manager: Bryce Johnson

G. Adjournment

Prepared By: Athena Petty, Planning Staff Assistant
Date Prepared: September 24, 2014

IN ACCORDANCE WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA), PERSONS IN NEED OF A SPECIAL ACCOMMODATION TO PARTICIPATE IN THIS PROCEEDING SHALL, WITHIN THREE (3) DAYS PRIOR TO ANY PROCEEDING, CONTACT THE CITY SECRETARY'S OFFICE, SUITE 201, 823 ROSENBERG, GALVESTON, TEXAS 77550 (409 797-3510).

MEMBERS OF CITY COUNCIL MAY BE ATTENDING AND PARTICIPATING IN THIS MEETING.

14Z-35 (3814 Ave Q) Request for a variance regarding detached sign size and illumination requirements in a Multi-Family One (MF-1) zoning district. Property is legally described as the Northwest Block 110 of the Galveston Outlots, in the City and County of Galveston, Texas.
Applicant: Dr. W. Myles Shelton
Property Owner: Galveston College

Case Manager: Ian Knox, Urban Planner II

Existing Zoning and Land Use

Zoning	Multi Family-One (MF-1)
Land Use	School

Surrounding Zoning and Land Use

	North	South	East	West
Zoning	Multi Family-One (MF-1)	Multi Family-One (MF-1)	General Residence (GR)	Institutional (I)
Land Use	Residential	Residential	Residential	School

Property Owner Notification as of October 8, 2014:

Sent	Returned	In Favor	In Opposition	No Comment
62				

City Department Notifications:

Airport:	No Objection
Building Department:	No Objection
Fire Chief:	No Objection
Fire Marshal:	No Objection
Police Department:	No Objection
Public Works:	No Objection

ANALYSIS

The applicant is requesting a variance from the signage regulations of the Multi Family (MF-1) zoning district in order to erect one detached illuminated (LED) sign at the Galveston College. The regulations for signage within a MF-1 zoning district are located in Section 29-82: Sign Regulations of the Galveston Zoning Standards. Section 29-82 (i) applies to signage and states the following:

> **Signs In The GR, MF-1, MF-2, P, and O Districts**
> Projecting or detached sign, maximum of one (1) oriented to each street frontage. The sign area shall not exceed twenty (20) square feet.

The applicant is proposing to install an illuminated 10-foot by 12-foot Monument sign to be used in association with Galveston College. The proposed sign design is included as Attachment “B”.

Requested Variances

The applicant is requesting the following variances:

Variance #1 – Illumination

Illuminated signs are not permitted in GR, MF-1, MF-2, P, and O zoning districts, therefore the proposed sign will require a variance to allow LED signage.

Variance #2 – Size

The proposed sign measurements are 10-foot by 12-foot. In GR, MF-1, MF-2, P, and O zoning districts, the maximum size for a non-residential Owner-Identification Sign is 20 square feet. A variance will be required for 120 square feet.

Applicant's Justification

The purpose of this request is to install modern signage to "provide more appropriate and timely messages that benefit our students, faculty, staff, and the community as a whole". Please see attachment "D" for a more detailed applicant narrative.

CONDITIONS FOR A VARIANCE

The Board of Adjustment may grant a variance under this Section only if the variance is not prohibited by Section 14.401.C. in Article 14, Administrative Bodies, and if the Board makes a determination in writing that all of the following are demonstrated:

1. The request for the variance is rooted in special conditions of the applicant's property that do not generally exist on other properties in the same zoning district.
2. Due to said special conditions, the literal enforcement of the strict terms of these Land Development Regulations would impose an unnecessary hardship on the applicant.
3. The variance is not contrary to the public interest, in that:
    i. It does not allow applicants to impair the application of these regulations for:
        a. Self-imposed hardships;
        b. Hardships based solely on financial considerations, convenience or inconvenience; or
        c. Conditions that are alleged to be "special," but that are actually common to many properties within the same zoning district.
    ii. The variance will not have a detrimental impact upon:
        a. The current or future use of adjacent properties for purposes for which they are zoned;
        b. Public infrastructure or services; and
        c. Public health, safety, morals and general welfare of the community.
4. The degree of variance allowed from these Land Development Regulations is the least that is necessary to grant relief from the identified unnecessary hardship.
5. The variance shall not be used to circumvent other procedures and standards of these Land Development Regulations that could be used for the same or comparable effect (*e.g.*, if alternative development patterns, alternative development standards, or other flexible measures in these regulations are available that would avoid or mitigate hardship without using a variance, then they must be used).
6. By granting the variance, the spirit of these Land Development Regulations is observed and substantial justice is done.

APPEAL FROM DECISION OF BOARD

In accordance with Section 29-112, any person aggrieved by any decision of the Board, or any officer, department or other Board of the City, may appeal the decision or action of the Board by filing a petition for the same in a court of competent jurisdiction, setting forth that such decision is illegal in whole or in part, and specifying the grounds for the alleged illegality. Such petition shall be filed with the Court within ten (10) days from the day the Board renders its decision, and not thereafter. The time period set forth herein shall be deemed jurisdictional.

ATTACHMENTS

"A" – Aerial Map
"B" – Sign Design
"C" – Site Plan
"D" – Applicant's Narrative


40th St
Ave Q
38th St
39th St
(Mike Gallo Blvd)
Ave Q 1/2
Ave R
38th St
40th St
38th St
3814
3927
3925
3923
3921
3919
3915
3905
2103
2111
2115
2117
3908
4015
3924
3918
3916
3912
3927
3919
3913
3909
2201
2207
2215
3926
3920
3910
2223
3827
3821
3811
2210
2212
2216
2222
3828
3820
3814
3812
3806
3802
2219
2223
3702
4027
4019
4013
2308
2312
2309
2301
3917
3915
3905
2312
2302
3817
3807
3803
3801
2310
2311
2307
2309
3727
3721
3717
3709
3723
3730
3720
3716
2111

GALVESTON COLLEGE
REQUEST FOR VARIANCE/SPECIAL EXCEPTION

1. Galveston College proposes to replace the existing Galveston College illuminated sign at the corner of 39th and Q (See picture below of current sign) with a modern monument sign with a LED sign area. The proposed new sign with the LED sign area is dimensionally similar to the existing sign at 39th and Q. Further, the design of the new sign is consistent with other new signage planned for the campus and will provide the College with consistent branding in all of its signage.

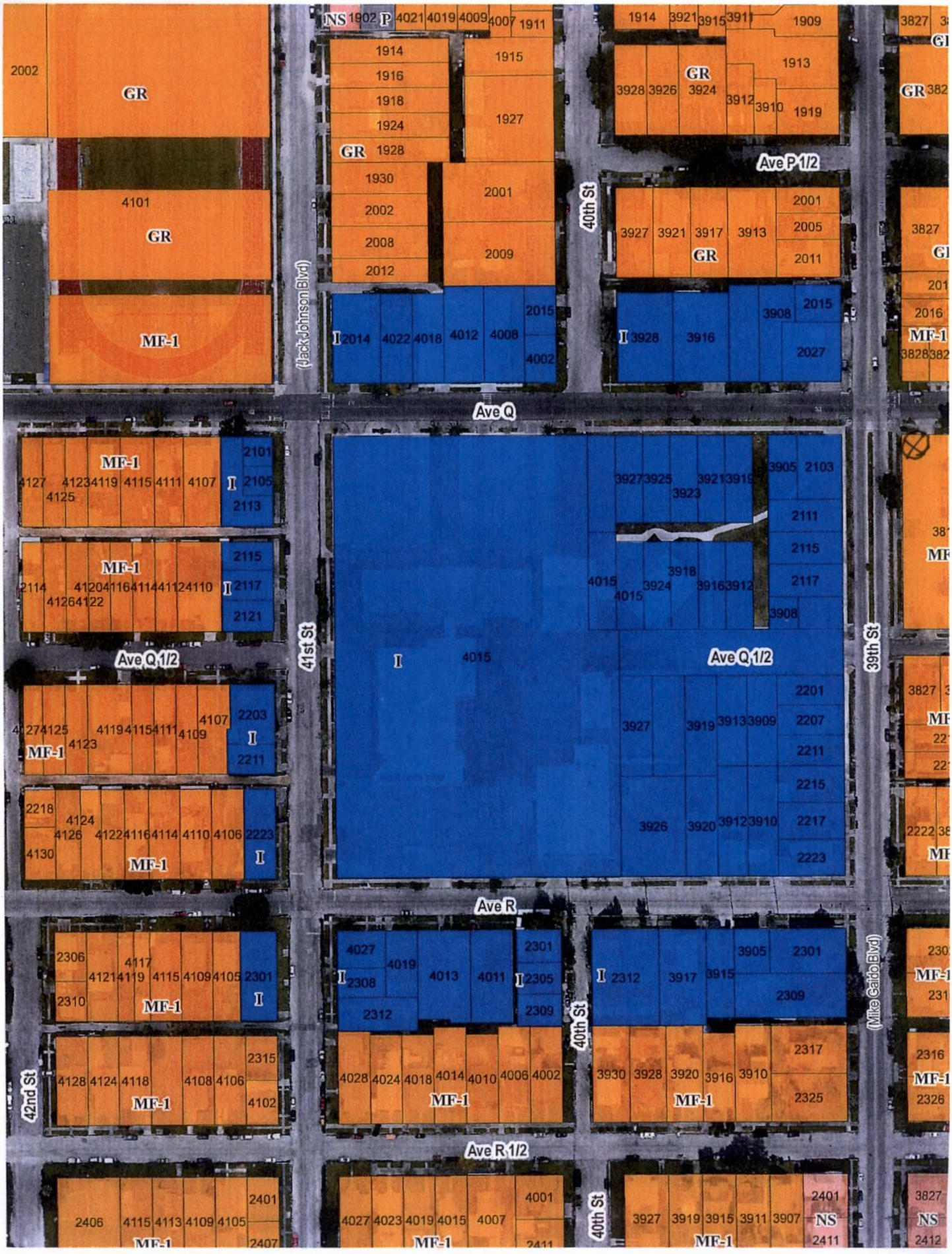
2. The replacement signage will be located in a parking lot owned by the College that is located East of 39th Street and bounded on the north and south by Avenues Q and Q ½. As seen in the picture below, the new sign is to be located on northwest corner of the parking lot at the intersection of 39th and Q.

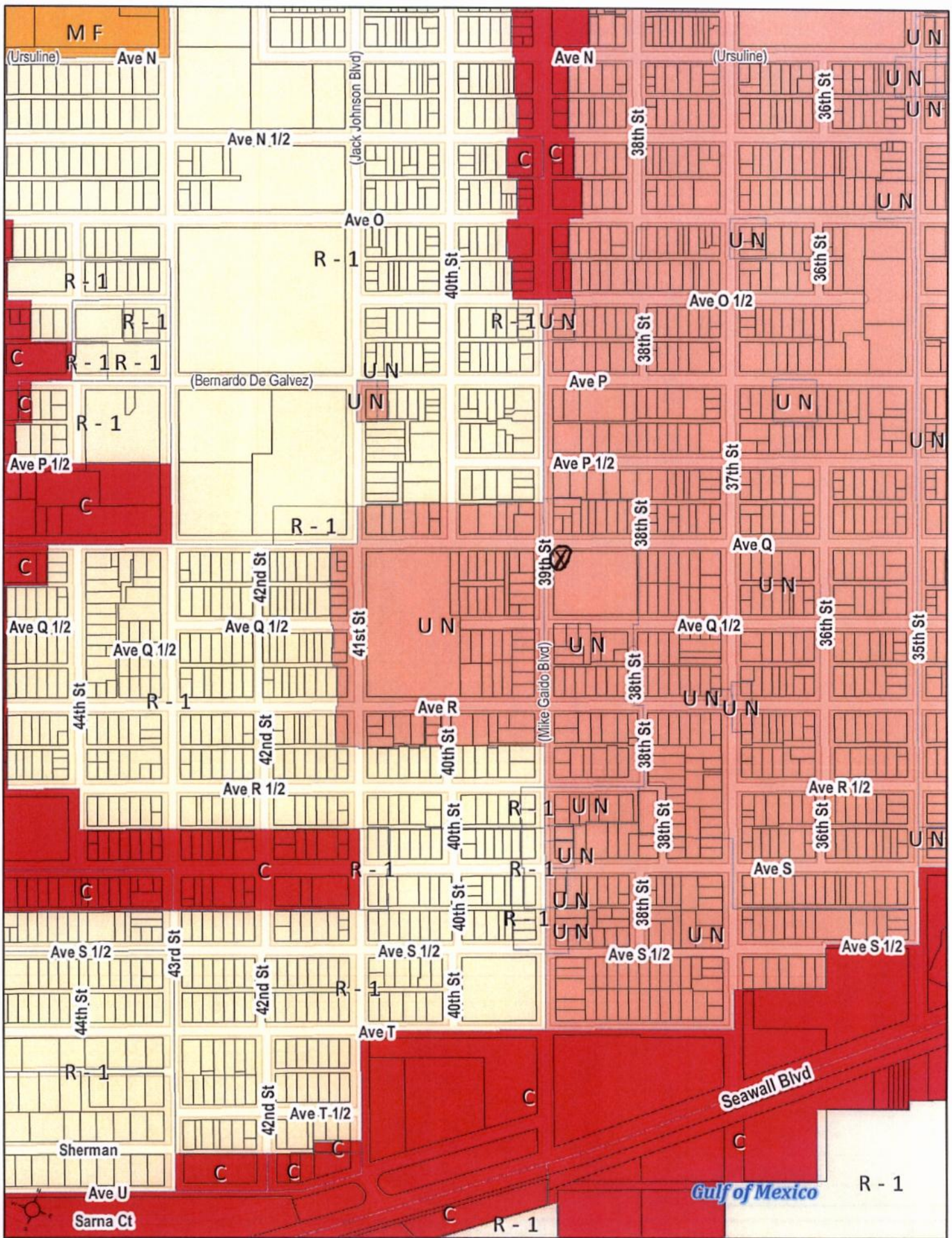
3. We believe that the proposed new sign will offer the College community and the Galveston community improved access to information about the College. We also believe that a new LED sign will allow the College to provide more appropriate and timely messages that benefit our students, faculty, staff, and the community as a whole.

4. As this is replacement signage, we do believe that modern signage will be an improvement over the existing sign and will not impose a major change on the area.

5. Although the campus and most of the area surrounding the College are currently zoned Institutional (I), the College parking lot at 39th and Avenue Q is currently zoned residential (MF-1). The new proposed zoning maps zone the College and its surrounding area including the parking lot at 39th and Q all the same, Urban Neighborhood (UN). Under this designation, we believe the proposed new monument sign with the LED display (as replacement signage) would be allowed.

6. Therefore, for the reasons stated above, we ask that you grant this variance at this time so that the College can move forward with the installation of this new sign.


Ave P 1/2
Ave Q
Ave Q 1/2
Ave R
Ave R 1/2
41st St
40th St
39th St
42nd St
(Jack Johnson Blvd)
(Mike Gaido Blvd)
GR
MF-1
I
P
NS



Planning Department

Map prepared by the City of Galveston Planning Department (knoxian) - 8/12/2014

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

0 285 570 1,140 Feet

The data presented on these pages is not legally binding on the City of Galveston or any of its departments. These maps and the associated data are representations ONLY and may contain errors in the databases. Therefore, the information presented on this map is for informational purposes only and should not be construed to be legally binding.

14Z-36 (2102 59th Street) Request for a variance from Section 29-89: Storage of Petrochemicals to allow the replacement of an underground storage tank with an above ground storage tank. Property is legally described as Lots 1 through 11 Block 2 Kinkeads Addition, in the City and County of Galveston, Texas.
Applicant: Timothy Mose, Gensler
Property Owner: Ruben Martinez , AT&T/Southwestern Bell Tele. Co

Case Manager: Ian Knox, Urban Planner II

Existing Zoning and Land Use:

Zoning	One Family-Two (1F-2)
Land Use	Commercial

Surrounding Zoning and Land Use:

	North	South	East	West
Zoning	One Family-Two (1F-2)	One Family-Two (1F-2)	One Family-Two (1F-2)	Planned Development (PD)
Land Use	Residential	Restaurant	Residential	RV Park

Property Owner Notification as of October 8, 2014:

Sent	Returned	In Favor	In Opposition	No Comment
27				

City Department Notifications:

Airport:	No Objection
Building Department:	No Objection
Fire Chief:	No Objection
Fire Marshall:	No Objection
Police Department:	No Objection
Public Works:	No Objection

ANALYSIS

The applicant is seeking a variance to allow an above ground storage tank in a residential neighborhood. Currently Section 29-89 of the Zoning Standards specify the following regarding storage of petrochemicals in residential zoning districts:

> **STORAGE OF PETROCHEMICALS**
>
> The storage of gasoline or diesel fuel in any residential zoning district (1F-1, 1F-2, 1F-3, 1F-4, MF-1, MF-2, GR and HIST) or on any lot with existing residential uses shall be restricted to industrial storage containers not exceeding five (5) gallons in capacity with no more than a total of twenty-five (25) gallons being permitted for each residence.

Aboveground storage or portable tanks in excess of twenty-five (25) gallons may not be located within one hundred and fifty feet (150') of a residential property line or street right-of-way.

A Stationary Tank Permit shall be required from the office of the City Fire Marshal for any facility for storage of gasoline or diesel greater than twenty-five (25) gallons.

Requested Variance(s)

Distance to residential property line: From 150-feet to 25-feet.

Applicant's Justification

Please reference attachment "C" for the applicant's narrative.

CONDITIONS FOR A VARIANCE

The Board of Adjustment may grant a variance under this Section only if the variance is not prohibited by Section 14.401.C. in Article 14, Administrative Bodies, and if the Board makes a determination in writing that all of the following are demonstrated:

1. The request for the variance is rooted in special conditions of the applicant's property that do not generally exist on other properties in the same zoning district.
2. Due to said special conditions, the literal enforcement of the strict terms of these Land Development Regulations would impose an unnecessary hardship on the applicant.
3. The variance is not contrary to the public interest, in that:
    i. It does not allow applicants to impair the application of these regulations for:
        a. Self-imposed hardships;
        b. Hardships based solely on financial considerations, convenience or inconvenience; or
        c. Conditions that are alleged to be "special," but that are actually common to many properties within the same zoning district.
    ii. The variance will not have a detrimental impact upon:
        a. The current or future use of adjacent properties for purposes for which they are zoned;
        b. Public infrastructure or services; and
        c. Public health, safety, morals and general welfare of the community.
4. The degree of variance allowed from these Land Development Regulations is the least that is necessary to grant relief from the identified unnecessary hardship.
5. The variance shall not be used to circumvent other procedures and standards of these Land Development Regulations that could be used for the same or comparable effect (*e.g.*, if alternative development patterns, alternative development standards, or other flexible measures in these regulations are available that would avoid or mitigate hardship without using a variance, then they must be used).
6. By granting the variance, the spirit of these Land Development Regulations is observed and substantial justice is done.

APPEAL FROM DECISION OF BOARD

In accordance with Section 29-112, any person aggrieved by any decision of the Board, or any officer, department or other Board of the City, may appeal the decision or action of the Board by filing a petition for the same in a court of competent jurisdiction, setting forth that such decision is illegal in whole or in part, and specifying the grounds for the alleged illegality. Such petition

shall be filed with the Court within ten (10) days from the day the Board renders its decision, and not thereafter. The time period set forth herein shall be deemed jurisdictional.

ATTACHMENTS

"A" – Aerial Map
"B" – Site Plan
"C" – Applicant's Narrative

Planning Department

Map prepared by the City of Galveston Planning Department (knoxian) - 9/22/2014

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

0 50 100 200 Feet

MAP PROVIDED BY ANDREW GALLAGHER

Map

EXIST. U.S.T.

PROPOSED NEW PAST.

GraphicsResource
internal/internal_utilities

Water
Water Plant
Water Main

Sewer
Lift Station
Sewer Main

Streets
ROAD_CLASS
INTERMEDIATE
LOCAL
MAJOR

Parcels

Island_outline

2014 Aerial
RGB
Red: Band_1
Green: Band_2
Blue: Band_3

HARDSHIP LETTER

&

SUPPORTING DOCUMENTS

(i.e., Maps, Code & Mfg. Data, TCEQ Info., etc.,)

711 Louisiana
Suite 300
Houston TX 77002
USA

Tel 713.844.0000
Fax 713.844.0001

Gensler

September 3, 2014

Zoning Board of Adjustments
City of Galveston
823 Rosenberg, Galveston, TX 77553

Subject: AT&T GALVESTON SHERWOOD FACILITY
VARIANCE REQUEST TO SECTION 29-89 STORAGE OF PETROCHEMICALS
Project Number: 22.3179.000
File Code: 1RA

Faxed to: N/A

Dear Zoning Board of Adjustments:

We respectfully submit the attached variance application and all our supporting documentation and pray for your concurrence and approval of said variance in support of our existing 'permitted use' and granting of the variance for the storage of the requested volume of fuel in a new PAST-Protected Aboveground Storage Tank greater than allowable by Section 29-89 and within closer proximity to a residential property line and/or street R.O.W. which will serve to replace our Client's existing, larger UST-Underground Storage Tank that is approximately 26-years old (installed in 1988).

Please accept the following as our detailed justification for the requested variance as a continuation of **Part IV. - APPLICANT'S JUSTIFICATION FOR THE REQUEST – HARDSHIP STATEMENTS**:

1. EXISTING AT&T FACILITY WAS BUILT IN THE 1960'S, PRIOR TO THE ADOPTION OF THE 1991 ZONING ORDINANCE. WE RESPECTFULLY REQUEST THAT THE FACILITY BE "GRANDFATHERED" FOR ITS EXISTING CONSTRUCTION AND EXISTING CONDITIONS. HISTORICALLY, RESIDENTIAL DEVELOPMENTS HAVE OCCURRED AROUND AND AFTER THE TELECOMM FACILITY WAS IN PLACE AND WE'RE CONFIDENT THIS TO BE THE CASE HERE.

2. EXISTING BUILDING OCCUPANCY CLASSIFICATION (B-OFFICE) AND USE (TELECOMMUNICATIONS EQUIPMENT BUILDING) REMAINS THE SAME FROM ORIGINAL BUILDING AND OCCUPANCY DATE OF APPROXIMATELY 1960.

3. WE RESPECTFULLY REQUEST AN AMENDMENT TO THE CITY OF GALVESTON ZONING AND BUILDING CODES FOR THE TERM, "CRITICAL FACILITY" FOR WHICH OTHER JURISDICTIONS CLASSIFY THIS TYPE OF FACILITY DUE TO THE REGULAR SERVICES PROVIDED AS WELL AS DURING EMERGENCY RESPONSE & PUBLIC COMMUNICATIONS DURING NATURAL DISASTERS FOR THE AREA.

4. UST – UNDERGROUND STORAGE TANKS
UST's ARE NOT VISIBLE, SO LEAKS CAN GO UNDETECTED WHILE CONTAMINATING THE SURROUNDING SOILS, GROUND-WATER, ETC., HENCE, CAUSING POLLUTION THAT IS UNTRACED FOR YEARS. TYPICAL LIFE-CYCLE FOR CERTAIN UST's HAVE BEEN 20-30 YEARS. EVEN WITH LEAK DETECTION SYSTEMS, THE FACT THAT IS UNDERGROUND IS WHY AT&T IS TARGETING THE REMOVAL OF UST's AND REPLACING WITH PAST's.

(VERSUS)

PAST – PROTECTED ABOVE-GROUND STORAGE TANKS
PAST's UTILIZED IN THIS INSTANCE IS FIRE-RESISTANT AND VEHICLE IMPACT PROTECTED. ADDITIONALLY, UNLIKE UST's, IF ANY LEAK WERE TO OCCUR, DETECTION BY SENSORS AND VISUALLY ARE PRACTICALLY IMMEDIATE ALLOWING FOR MITIGATION OF ANY DAMAGE AND/OR HARM TO THE PUBLIC AND ENVIRONMENT. PAST's ARE MORE SUPERIOR THAN STANDARD AST's AND PROVIDE MORE SAFE-GUARDS THAN UST's.

5. THE PROPOSED PAST, NOW IMPROVES NETWORK RELIABILITY IN THE EVENT OF A NATURAL DISASTER OR OTHER EMERGENCY BY PLACING IT ABOVE THE FLOOD-PLAIN UNLIKE OUR CURRENT SITUATION.

6. THE STORAGE CAPACITY IS STANDARD PER FCC REQUIREMENTS FOR SUCH A CRITICAL FACILITY AND ALLOWS FOR UPTO 72-HRS RUN-TIME ON EMERGENCY/BACKUP GENERATOR IN THE EVENT OF A NATURAL DISASTER WHICH IS ABOUT THE AVERAGE EMERGENCY EVACUATION RESPONSE TIME UPON NOTICE OF AN EVENT.

7. AFFECTED BUSINESSES AND MUNIPALITIES (CRITICAL PUBLIC SERVICES)

- GALVESTON POLICE DEPARTMENT -GALVESTON FIRE DEPARTMENT
- GALVESTON COUNTY COURT HOUSE - GALVESTON COUNTY SHERIFF's DEPT
- PELICAN ISLAND 'CELL TOWERS' - 50% OF THE PORT OF GALVESTON
- TEXAS A&M CAMPUS - SCHOLES FIELD
- MOODY GARDENS - MUCH MORE, ETC.,
- SEE ATTACHED MAP OF NUMBERS AND AREAS AFFECTED

8. COVERAGE: 34.4 square miles
BOUNDARIES: WEST TO 7 MILE ROAD, EAST TO 49TH STREET, NORTH TO GALVESTON BAY AND PELICAN ISLAND AND SOUTH TO GULF OF MEXICO.

-----END OF HARDSHIP STATEMENTS------

In closing, we prayerfully yield to the Board and request your acceptance and approvals varianc requested and concur that this facility is indeed, a 'Critical Facility'.

Sincerely,

Timothy Mose
Account/Project Manager

Enclosure: GENSLER (USB jump-drive w/digital info of hard-copy)
cc: Ruben Martinez – AT&T PD&C PM
file

SECTION 603
FUEL-FIRED APPLIANCES

603.1 Installation. The installation of nonportable fuel gas appliances and systems shall comply the *International Fuel Gas Code*. The installation of all other fuel-fired appliances, other than internal combustion engines, oil lamps and portable devices such as blow torches, melting pots and weed burners, shall comply with this section and the *International Mechanical Code*.

603.1.1 Manufacturer's instructions. The installation shall be made in accordance with the manufacturer's instructions and applicable federal, state and local rules and regulations. Where it becomes necessary to change, modify or alter a manufacturer's instructions in any way, written approval shall first be obtained from the manufacturer.

603.1.2 Approval. The design, construction and installation of fuel-fired appliances shall be in accordance with the *International Fuel Gas Code* and the *International Mechanical Code*.

603.1.3 Electrical wiring and equipment. Electrical wiring and equipment used in connection with oil-burning equipment shall be installed and maintained in accordance with Section 605 and NFPA 70.

603.1.4 Fuel oil. The grade of fuel oil used in a burner shall be that for which the burner is *approved* and as stipulated by the burner manufacturer. Oil containing gasoline shall not be used. Waste crankcase oil shall be an acceptable fuel in Group F, M and S occupancies, when utilized in equipment *listed* for use with waste oil and when such equipment is installed in accordance with the manufacturer's instructions and the terms of its listing.

603.1.5 Access. The installation shall be readily accessible for cleaning hot surfaces; removing burners; replacing motors, controls, air filters, chimney connectors, draft regulators and other working parts; and for adjusting, cleaning and lubricating parts.

603.1.6 Testing, diagrams and instructions. After installation of the oil-burning equipment, operation and combustion performance tests shall be conducted to determine that the burner is in proper operating condition and that all accessory equipment, controls, and safety devices function properly.

603.1.6.1 Diagrams. Contractors installing industrial oil-burning systems shall furnish not less than two copies of diagrams showing the main oil lines and controlling valves, one copy of which shall be posted at the oil-burning equipment and another at an *approved* location that will be accessible in case of emergency.

603.1.6.2 Instructions. After completing the installation, the installer shall instruct the *owner* or operator in the proper operation of the equipment. The installer shall also furnish the *owner* or operator with the name and telephone number of *persons* to contact for technical information or assistance and routine or emergency services.

603.1.7 Clearances. Working clearances between oil-fired appliances and electrical panelboards and equipment shall be in accordance with NFPA 70. Clearances between oil-fired equipment and oil supply tanks shall be in accordance with NFPA 31.

[B, M, FG] 603.2 Chimneys. Masonry chimneys shall be constructed in accordance with the *International Building Code*. Factory-built chimneys shall be installed in accordance with the *International Mechanical Code*. Metal chimneys shall be constructed and installed in accordance with NFPA 211.

603.3 Fuel oil storage systems. Fuel oil storage systems shall be installed in accordance with this code. Fuel oil piping systems shall be installed in accordance with the *International Mechanical Code*.

603.3.1 Fuel oil storage in outside, above-ground tanks. Where connected to a fuel-oil piping system, the maximum amount of fuel oil storage allowed outside above ground without additional protection shall be 660 gallons (2498 L). The storage of fuel oil above ground in quantities exceeding 660 gallons (2498 L) shall comply with NFPA 31.

603.3.2 Fuel oil storage inside buildings. Fuel oil storage inside buildings shall comply with Sections 603.3.2.1 through 603.3.2.5 or Chapter 34.

603.3.2.1 Quantity limits. One or more fuel oil storage tanks containing Class II or III *combustible liquid* shall be permitted in a building. The aggregate capacity of all such tanks shall not exceed 660 gallons (2498 L).

Exception: The aggregate capacity limit shall be permitted to be increased to 3,000 gallons (11 356 L) of Class II or III liquid for storage in protected above-ground tanks complying with Section 3404.2.9.6, when all of the following conditions are met

1. The entire 3,000 gallon (11 356 L) quantity shall be stored in protected above-ground tanks;
2. The 3,000 gallon (11 356 L) capacity shall be permitted to be stored in a single tank or multiple smaller tanks; and
3. The tanks shall be located in a room protected by an *automatic sprinkler system* complying with Section 903.3.1.1.

603.3.2.2 Restricted use and connection. Tanks installed in accordance with Section 603.3.2 shall be used only to supply fuel oil to fuel-burning or generator equipment installed in accordance with Section 603.3.2.4. Connections between tanks and equipment supplied by such tanks shall be made using closed piping systems.

603.3.2.3 Applicability of maximum allowable quantity and control area requirements. The quantity of *combustible liquid* stored in tanks complying with Section 603.3.2 shall not be counted towards the maximum allowable quantity set forth in Table 2703.1.1 (1), and such tanks shall not be required to be located in a *control area*.

metal floating roof meeting the requirements of API Standard 650

(3) A fixed metal roof with ventilation at the top and roof eaves constructed in accordance with API Standard 650 and containing a metal floating cover supported by liquidtight metal floating devices that provide buoyancy to prevent the liquid surface from being exposed when half of the flotation is lost

22.2.2.1 For the purposes of this chapter, an aboveground storage tank with an internal metal floating pan, roof, or cover that does not meet 22.2.2 or one that uses plastic foam (except for seals) for flotation, even if encapsulated in metal or fiberglass, shall meet the requirements for a fixed roof tank.

22.2.3 Protected Aboveground Tank. An atmospheric aboveground storage tank with integral secondary containment and thermal insulation that has been evaluated for resistance to physical damage and for limiting the heat transferred to the primary tank when exposed to a hydrocarbon pool fire and is listed in accordance with ANSI/UL 2085, *Standard for Protected Aboveground Tanks for Flammable and Combustible Liquids*, or an equivalent test procedure.

22.3 General Requirements. Storage of Class II and Class III liquids heated at or above their flash point shall follow the requirements for Class I liquids, unless an engineering evaluation conducted in accordance with Chapter 6 justifies following the requirements for some other liquid class.

22.4

*** Location of Aboveground Storage Tanks.**

22.4.1 Location with Respect to Property Lines, Public Ways, and Important Buildings.

22.4.1.1 Tanks storing Class I, Class II, or Class IIIA stable liquids whose internal pressure is not permitted to exceed a gauge pressure of 2.5 psi (17 kPa) shall be located in accordance with Table 22.4.1.1(a) and Table 22.4.1.1(b). Where tank spacing is based on a weak roof-to-shell seam design, the user shall present evidence certifying such construction to the authority having jurisdiction upon request.

22.4.1.2 Vertical tanks with weak roof-to-shell seams *(see 22.7.2)* that store Class IIIA liquids shall be permitted to be located at one-half the distances specified in Table 22.4.1.1(a), provided the tanks are not within the same diked area as, or within the drainage path of, a tank storing a Class I or Class II liquid.

22.4.1.3 Tanks storing Class I, Class II, or Class IIIA stable liquids and operating at pressures that exceed a gauge pressure of 2.5 psi (17 kPa), or are equipped with emergency venting that will permit pressures to exceed a gauge pressure of 2.5 psi (17 kPa), shall be located in accordance with Table 22.4.1.3 and Table 22.4.1.1(b).

22.4.1.4 Tanks storing liquids with boil-over characteristics shall be located in accordance with Table 22.4.1.4. Liquids with boil-over characteristics shall not be stored in fixed roof tanks larger than 150 ft (45 m) in diameter, unless an approved inerting system is provided on the tank.

Table 22.4.1.1(a) Location of Aboveground Storage Tanks Storing Stable Liquids — Internal Pressure Not to Exceed a Gauge Pressure of 2.5 psi (17 kPa)

		Minimum Distance (ft)	
Type of Tank	**Protection**	**From Property Line That Is or Can Be Built Upon, Including the Opposite Side of a Public Way[a]**	**From Nearest Side of Any Public Way or from Nearest Important Building on the Same Property[a]**
Floating roof	Protection for exposures[b]	½ × diameter of tank	⅙ × diameter of tank
	None	Diameter of tank but need not exceed 175 ft	⅙ × diameter of tank
Vertical with weak roof-to-shell seam	Approved foam or inerting system[c] on tanks not exceeding 150 ft in diameter[d]	½ × diameter of tank	⅙ × diameter of tank
	Protection for exposures[b]	Diameter of tank	⅓ × diameter of tank
	None	2 × diameter of tank but need not exceed 350 ft	⅓ × diameter of tank
Horizontal and vertical tanks with emergency relief venting to limit pressures to 2.5 psi (gauge pressure of 17 kPa)	Approved inerting system[b] on the tank or approved foam system on vertical tanks	½ × value in Table 22.4.1.1(b)	½ × value in Table 22.4.1.1(b)
	Protection for exposures[b]	Value in Table 22.4.1.1(b)	Value in Table 22.4.1.1(b)
	None	2 × value in Table 22.4.1.1(b)	Value in Table 22.4.1.1(b)
Protected aboveground tank	None	½ × value in Table 22.4.1.1(b)	½ × value in Table 22.4.1.1(b)

For SI units, 1 ft = 0.3 m.

[a]The minimum distance cannot be less than 5 ft (1.5 m).

[b]See definition 3.3.46, Protection for Exposures.

[c]See NFPA 69, *Standard on Explosion Prevention Systems*.

[d]For tanks over 150 ft (45 m) in diameter, use "Protection for Exposures" or "None," as applicable.

Central Registry Query - Regulated Entity Information

Regulated Entity Information

RN Number: RN102400488
Name: GALVESTON SHERWOOD
Primary Business: No primary business description on file.
Street Address: 2102 59TH ST, GALVESTON TX 77551 5023
County: GALVESTON
Nearest City: No near city on file.
State: TX
Near ZIP Code: 77550
Physical Location: No physical location description on file.

Affiliated Customers - Current

Your Search Returned **1** Current Affiliation Records (View Affiliation History)

1-1 of 1 Records

CN Number	Customer Name	Customer Role	Details
CN600261663	SOUTHWESTERN BELL TELEPHONE LP	OWNER OPERATOR	

Industry Type Codes

Code	Classification	Name
No NAICS or SIC Codes on file.		

Permits, Registrations, or Other Authorizations

There are a total of **2** programs and IDs for this regulated entity. Click on a column name to change the sort order.

1-2 of 2 Records

Program	ID Type	ID Number	ID Status
PETROLEUM STORAGE TANK REGISTRATION	REGISTRATION	19558	INACTIVE
PETROLEUM STORAGE TANK STAGE II			

Texas Commission on Environmental Quality
Petroleum Storage Tank Program

Delivery Certificate

(Non-Transferable)

Expires Last day of:
March 2015
TCEQ Form PST05 (5-10-11)

For The Commission

This hereby certifies that the underground storage tanks (USTs) at the facility identified herein have been self-certified as compliant with all technical and administrative standards for fuel delivery purposes. This certificate verifies self certification only, and does not certify that the listed USTs are in compliance with TCEQ's Technical and Administrative requirements. *Prior to retail sale of fuel to the public using measured dispensing devices, any meter must be registered with the Texas Department of Agriculture.*

Owner/Operator #: 022573

SOUTHWESTERN BELL TELEPHONE L P
308 S AKARD ST
DALLAS, TX 75202-5315

Facility #: 0019558

GALVESTON SHERWOOD
2102 59TH ST
GALVESTON, TX 77551-5023

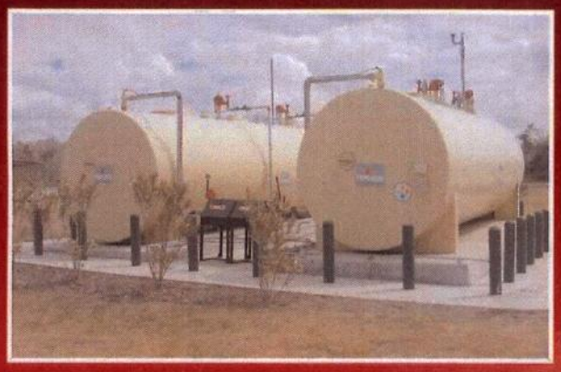
Self-Certified UST's: 1

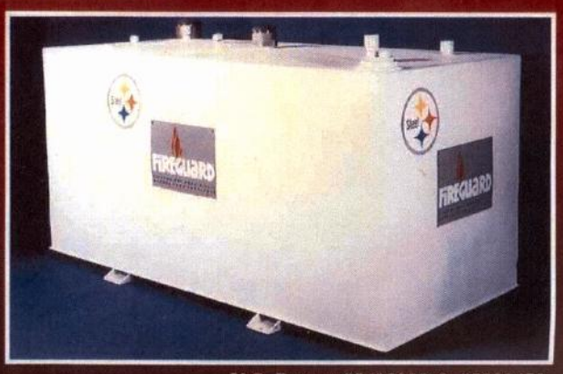
TCEQ LPS Form PST05A (05-10-11)

http://www.tceq.texas.gov/permitting/registration/pst/pst_query.html

FIREGUARD®

FIRE-RATED ABOVEGROUND TANKS





U.S. Patent #5695089 & #5809650

modern

UL 2085 Protected AST

Visit our Web Site:www.modweldco.com
Email us at: modern@modweldco.com

FIREGUARD® SPECIFICATIONS
CYLINDRICAL DESIGN

SAMPLE OUTER TANK DIMENSIONS,
ALL DIAMETERS AND LENGTHS ARE NOMINAL

GALLONS	DIAMETER	LENGTH	APPROX. WEIGHT (lbs.)
186	48	54	2,119
250	48	68	2,513
300	50	72	2,821
500	54	70	2,413
560	54	78	2,606
1,000	54	134	5,338
1,000	70	78	5,005
1,500	70	114	6,537
2,000	70	150	8,309
2,500	70	186	9,644
3,000	70	222	10,979
4,000	78	233	13,523
4,000	90	175	14,072
5,000	79	290	18,998
5,000	103	169	17,149
6,000	79	347	21,961
6,000	103	199	19,206
8,000	103	259	23,319
10,000	103	331	28,256
12,000	103	391	32,370
15,000	127	313	35,821
20,000	127	415	44,506
25,000	127	517	55,891
30,000	127	619	64,575

Please note that all dimensions and weights are approximate. Individual tanks may vary from these values.

FIREGUARD® SPECIFICATIONS
RECTANGULAR DESIGN

SAMPLE OUTER TANK DIMENSIONS
ALL DIAMETERS AND LENGTHS ARE NOMINAL

GALLONS	LENGTH	WIDTH	HEIGHT	APPROX. WEIGHT (lbs.)
186	45	45	56	2,256
250	118	37	37	3,305
250	79	51	37	2,916
500	141	52	37	4,991
750	141	73	37	6,513
1,000	128	73	37	4,607
1,000	89	73	51	4,102
1,500	125	89	45	5,772
2,000	141	87	51	6,679
2,000	141	73	61	6,486
2,500	141	89	61	7,453
3,000	251	73	51	11,572
3,000	118	103	73	9,379
4,000	332	73	51	14,990
4,000	155	103	73	11,640
5,000	337	73	61	16,615
5,000	192	103	73	13,901
6,000	403	73	61	19,631
6,000	229	103	73	16,162
8,000	371	103	61	22,872
8,000	303	103	73	20,684
10,000	461	103	61	27,992
10,000	377	103	73	25,205
12,000	452	103	73	29,788
15,000	387	103	103	38,510
18,000	463	103	103	45,290
24,700	466	138	103	54,539

FIREGUARD®: THE ONLY TANK THAT MEETS ALL OF THESE STANDARDS

- UL-2080 Listed "Fire Resistant" Tanks for Flammable and Combustible Liquids
- UL-2085 Listed "Protected" Aboveground Tanks for Flammable and Combustible Liquids
- Both inner and outer tanks built per UL-142 Standard for Steel Aboveground tanks for Flammable and Combustible Liquids
- Uniform Fire Code, 2000 Edition Article 79 and UFC Standard 79-7 "Protected Tank"
- UL-2244, Aboveground Flammable Liquid Tank Systems, The Fireguard tank can be used as the primary storage containment
- NFPA 30 and 30A, 2000 Edition, National Fire Protection Association
- NFPA 1, Uniform Fire Code™, of the National Fire Protection Association, 2003 Edition Section 3.3.199.5, "Protected Aboveground Tank"
- International Fire Code (IFC), 2000 – Chapter 34
- ULC-S655 Underwriters Laboratories of Canada Standard for Aboveground Tanks for Flammable and Combustible Liquids

Other Standards…

- Ballistics protection per UFC Article 79, and per UL-2085
- Vehicle impact protection per UFC Article 79, and per UL-2085
- California Air Resources Board (CARB) testing requirements for air emissions
- Steel Tank Institute (STI) Standard F941 for Thermally Insulated Aboveground Storage Tanks
- Many fire codes and environmental regulations will accept Fireguard® Secondary Containment Tanks as an alternate to diking requirements

MODERN WELDING COMPANY OF GEORGIA, INC.
300 Prep Phillips Dr., Augusta, GA 30901
Phone: (706) 722-3411 Fax: (706) 724-8133

MODERN WELDING COMPANY OF TEXAS, INC.
715 Sakowitz Street, Houston, TX 77020
Phone: (713) 675-4211 Fax: (713) 673-4062
200 North Main, Rhome, TX 76078
Phone: (817) 636-2215 Fax: (817) 636-2680

MODERN WELDING COMPANY OF FLORIDA, INC.
1801 Atlanta Avenue, Orlando, FL 32806
Phone: (407) 843-1270 Fax: (407) 423-8187

MODERN WELDING COMPANY OF CALIFORNIA, INC.
4141 North Brawley Avenue, Fresno, CA 93722
Phone: (559) 275-9353 Fax: (559) 275-4381

MODERN WELDING COMPANY OF IOWA, INC.
2818 Mt. Pleasant Road, Burlington, IA 52601
Phone: (319) 754-6577 Fax: (319) 754-8428

MODERN WELDING COMPANY OF OHIO, INC.
One Modern Way, Newark, OH 43055
Phone: (740) 344-9425 Fax: (740) 344-6018

MODERN WELDING COMPANY OF OWENSBORO, INC.
1450 East Parrish Avenue, Owensboro, KY 42303
Phone: (270) 683-5323 Fax: (270) 684-5245

Visit our Web Site: www.modweldco.com
Email us at: modern@modweldco.com

Regional Shipments reduce shipping costs!
Contact the nearest Modern Welding Subsidiary for price and delivery.

10/04/10M

130-50-0001

Modern Welding Company, Inc.

Fireguard AST Storage Tanks

Underwriters Laboratories UL-2085 Listed "Protected" Aboveground Tank for Flammable and Combustible Liquids

"Protected" means:

Tank Construction: Underwriters Laboratories UL-142 construction...metal thicknesses, venting capacities and general construction. During the full scale fire test, the temperatures recorded on the primary tank any time during the two-hour fire exposure shall not exceed an average maximum temperature rise of 260°F (144°C) and a maximum temperature of any single thermocouple of 400°F (204°C).

Ballistics tested: An empty tank is to be subjected to five shots of 150-grain M-2 ball ammunition, having a muzzle velocity of 2700 feet per second (823 m/s), fired from a .30 caliber rifle at a distance of 100 feet (30.4 m). The bullet is to be fired perpendicular to the point of impact on the tank wall determined to be most vulnerable. The shots are to be placed independently of each other and within a 3-foot by 3-foot (0.9-m by 0.9-m) area on the tank surface. Following the projectile test, the primary tank shall show no signs of leakage when subjected to the leakage test for primary tanks.

Stream hose tested: Immediately after the full scale fire test, the tank is to be removed from the furnace and subjected to a hose stream impact. The hose stream is to be applied for 2-1/2 minutes for every 100 square feet (10.8 square meters) of surface area. The minimum test duration is to be 2-1/2 minutes for samples with surface areas less than 100 square feet. The stream is to be delivered at a pressure of 30 psig (207 kPa) through a 2-1/2 inch (63.5 mm) diameter hose and discharged through play pipe constructed in accordance with the Standard for Play Pipes for Water Supply Testing in Fire-Protection Service, UL 385. The play pipe is to be equipped with a 1-1/8-inch (28.6-mm) discharge tip of the standard-taper, smooth-bore pattern without a shoulder at the orifice. The water temperature is to be within the range of 50 - 70°F (10 - 21°C). The nozzle orifice is to be located 20 feet (6.1 m) from the center of the nearest exposed surface. 18.4 The hose stream is first to be directed at the center of the test specimen located closest to the nozzle, and then to all parts of the exposed surface accessible from the nozzle location, with changes in direction being made slowly. Following this test, the primary tank shall show no signs of leakage when subjected to the leakage test for primary tanks.

Impact tested: For the test, the tank is to be installed and anchored in accordance with the manufacturer's instructions. The portion determined to be most vulnerable to vehicle impact is to be subjected to a single impact of 12,000-lb (5455-kg) force applied at 10 mph (14.7 ft/s) or equivalent impact energy. The impact is to be applied using a minimum 1/2-inch (12.5-cm) thick steel plate having a frontal surface area 12 inches by 12 inches (0.093 m2) at a height of 18 inches (457.2 mm) centered above grade level. Following this test, the primary tank shall show no signs of leakage when subjected to the leakage test for primary tanks.

Steel Tank Institute
570 Oakwood Road
Lake Zurich, IL 60047
847/438-8265 Fax 847/438-8766
Web site: http://www.steeltank.com

Steel Tank Institute

Fireguard®

1. Fireguard® is a Protected Tank defined as, "A method of tank construction that includes an aboveground atmospheric tank with secondary containment and an insulation system that is intended to limit the heat transferred to the primary tank when the construction is exposed to a 2-hour hydrocarbon pool fire and is provided with protection from physical damage."

2. UL 2085 Listed Protected tank. A Certificate of Compliance from UL is attached. UL 2085 requires the primary tank to be constructed per the requirements of UL 142 and Fireguard® complies with this requirement. UL 2085 has the following performance test requirements:
   a. FULL-SCALE FIRE TEST: A test which simulates a hydrocarbon pool fire. The representative tank is placed in a 2000° F rapid rise furnace that meets the requirements of UL 1709, "Standard for Rapid Rise Fire Tests of Protection Materials for Structural Steel." The temperatures recorded on the primary tank at any time during the 2-hour fire exposure must not exceed an average maximum temperature rise of 260°F and a maximum temperature of any single thermocouple of 400°F. The emergency venting of the tank must not be impaired during the test. Immediately following the fire test, the tank is subjected to the Hose Stream Test and the primary tank must not leak.
   b. BALLISTICS PROTECTION: A method of tank construction in which the tank system has a tested ability to prevent penetration of a bullet into the primary tank. The ballistics test shall require that the tank be shot at five times with a 150 grain (9.72 g) M-2 ball ammunition, having a muzzle velocity of 2700 feet per second (823 meters per second), fired from a .30 caliber rifle at a distance of 100 feet (30.5 m).
   c. HOSE STREAM RESISTANT: A method of tank construction in which the tank system has a tested ability to prevent leakage of the primary tank or damage to the insulation material when the completed tank assembly is impacted with a stream of water for 2 ½ minutes, as per the UFC test criteria, with the purpose of simulating a fire hose. This test shall be conducted immediately after the furnace test.
   d. IMPACT PROTECTION: A method of tank construction in which the tank

system has a tested ability to prevent leakage of the primary tank if impacted by a vehicle. Testing shall consist of hitting the completed tank assembly with a 12,000 pound (5455 kg) weight moving at 10 m.p.h.(16 kph), 18 inches (457 mm) off the ground in a one square foot area.

e. INTERSTITIAL COMMUNICATION TEST: A test that ensures the communication inside the interstitial space of liquid, vacuum, or pressure at the monitoring point.

3. ULC-S655-98 Listed Protected Tank. ULC is Underwriters' Laboratories of Canada. Their requirements mirror the UL 2085 requirements.

4. UFC (Uniform Fire Code) Protected tank. UFC testing requirements are identical to UL 2085 described above.

5. SwRI 93-01 Standard for Protected Tanks is identical to UL 2085 with 2 exceptions. SwRI 93-01 requires the tank used in the impact protection test to be anchored, while UL 2085 requires it to be unanchored. In addition, SwRI 93-01 allows the fire test to be extended from 2 hours to 4 hours. Please note that a requirement for a 4 hour test is for a Fireguard® Tank with 6 inches of insulation.

6. Fireguard® meets the California Air Resources Board (CARB) testing requirements for air emissions.

7. The Fireguard® secondary containment is testable on-site using standard, economical testing procedures. Steel outer wall provides low-cost maintenance and protects the insulation material from weathering. (Exposed concrete outer walls are susceptible to cracking, spalling and weathering.)

8. Fireguard® includes a 30 year warranty.

Certificate of Compliance

Certificate Number 0070130-MH17883
Report Reference MH17883,19940124
Issue Date 2007 January 30

Underwriters Laboratories Inc.®

Issued to: Steel Tank Institute, Div of STI/SPFA

570 Oakwood Rd.
Lake Zurich, IL 36502

This is to certify that representative samples of Protected Aboveground Tanks for Flammable and Combustible Liquids

Have been investigated by Underwriters Laboratories Inc.® in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 2085 Protected Aboveground Tanks for Flammable and Combustible Liquids

Additional Information: Listee's name,trade name,or trademark, a distinctive model designation or the equivalent, capacity of the primary containment tank, the month and year of manufacture, this tank requires emergency relief venting, the annular space requires emergency relief venting.

Only those products bearing the UL Listing Mark should be considered as being covered by UL's Listing and Follow-Up Service.

The UL Listing Mark generally includes the following elements: the symbol UL in a circle: (UL) with the word "LISTED"; a control number (may be alphanumeric) assigned by UL; and the product category name (product identifier) as indicated in the appropriate UL Directory.

Look for the UL Listing Mark on the product

Issued by: John Silsdorf
John Silsdorf/Lead Engineering Associate
Underwriters Laboratories Inc.

Reviewed by: Milan Dotlich
Milan Dotlich/Operations Manager
Underwriters Laboratories Inc.

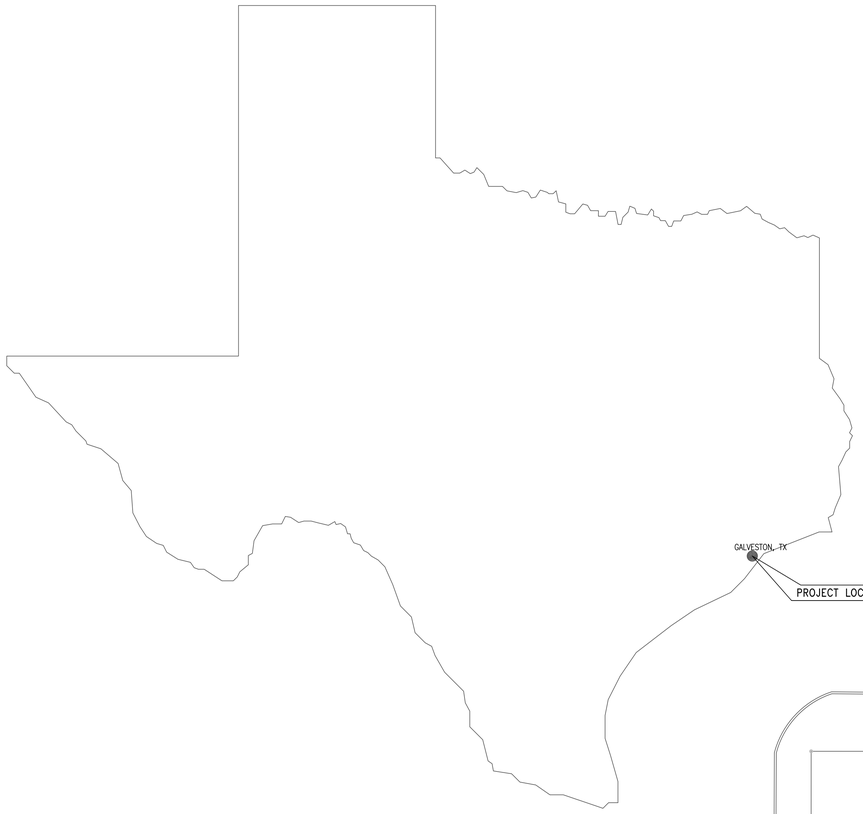
CONSTRUCTION DOCUMENTS OF PROPOSED UST REPLACEMENT

FUEL STORAGE TANK REPLACEMENT

GALVESTON, TX 77551

PREPARED FOR

AT&T CORPORATE
REAL ESTATE



DRAWING INDEX			
DWG. NO.	SHEET TITLE	REVISION NO.	DATE OF ISSUE
G1	TITLE PAGE AND DRAWING INDEX	5	06 MAY 2014
G2	BOUNDARY & TOPO SURVEY	1	16 SEPTEMBER 2013
G3	LEGEND, ABBREVIATIONS, AND GENERAL NOTES	5	06 MAY 2014
F1	DEMO PLAN 1	4	17 JANUARY 2014
F2	DEMO PLAN 2	4	17 JANUARY 2014
F3	AST PLAN 1	5	06 MAY 2014
F4	AST PLAN 2	5	06 MAY 2014
F5	STAIR PLAN	5	06 MAY 2014
F6	DETAILS PAGE	4	17 JANUARY 2014
F7	TANK FOUNDATION PLAN	0	02 JANUARY 2014
F8	ELECTRICAL PLAN	4	05 MAY 2014
F9	ELECTRICAL ONE LINE DIAGRAM	4	05 MAY 2014
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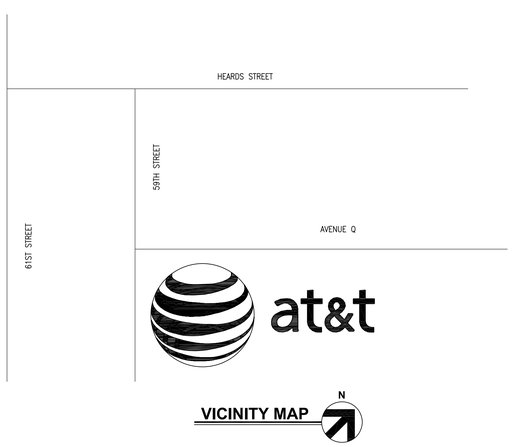
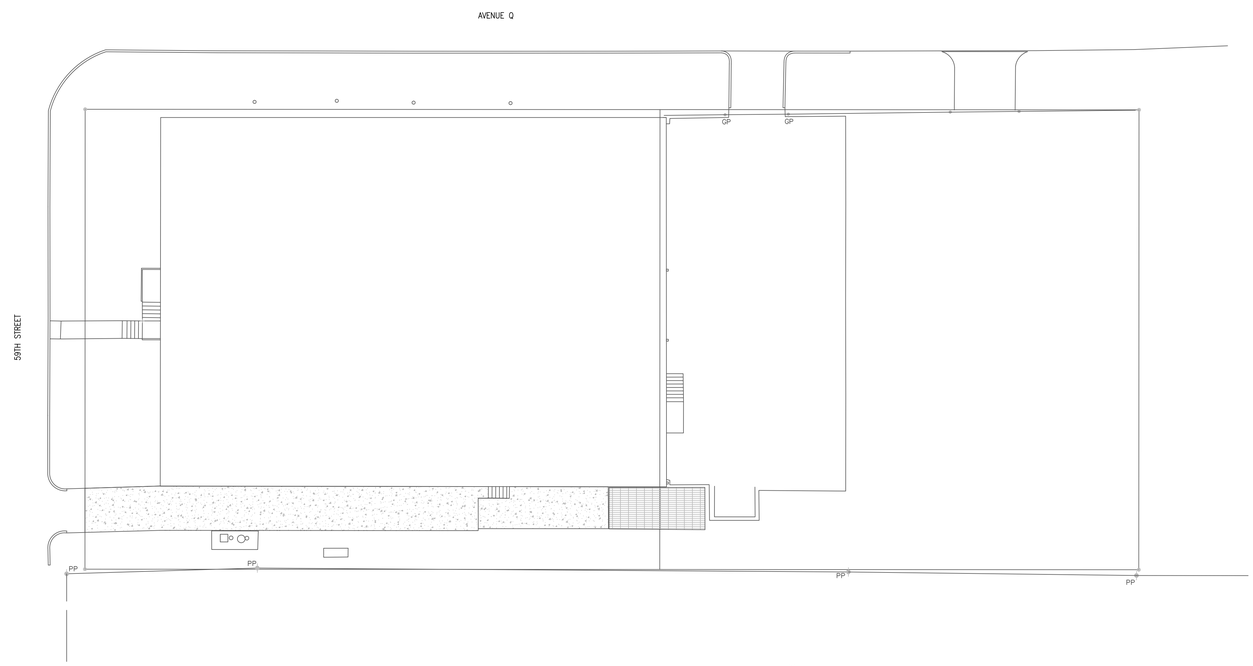


VICINITY MAP



SITE MAP
SCALE 1/16" = 1'-0"

at&t

CORPORATE REAL ESTATE

AT&T GALVESTON SHERWOOD
2102 59TH ST.
GALVESTON, TX 77551

Gensler
711 Louisiana Street
Suite 300
Houston TX 77002
Telephone 713.844.0000
Facsimile 713.844.0001

1401 Enclave Pkwy
Suite 250
Houston, TX 77077
Telephone 281.531.3100
Facsimile 281.531.3101

PROPRIETARY AT&T INFORMATION

NOT FOR GENERAL USE OR DISCLOSURE OUTSIDE OF AT&T
THIS INFORMATION MAY ONLY BE USED BY AUTHORIZED PERSONNEL OF THE LOCAL GOVERNMENT AGENCY IN CONNECTION WITH APPLICATION FOR PERMITS AND AUTHORIZATIONS FOR BUILDINGS, CONSTRUCTION, AND/OR ZONING CHANGES.

AT&T PROJECT NUMBER	AT&T AUTHORIZATION
9232644	
GEOLOC # WN5200	RUBEN MARTINEZ
	AT&T PROJECT MANAGER

△	Issue	Date & Issue Description	By	Check
1	09/16/13	ISSUED FOR REVIEW	S.H.	B.M.
2	10/30/13	ISSUED FOR REVIEW	S.H.	A.W.
3	12/10/13	ISSUED FOR BID	S.H.	A.W.
4	01/27/14	ISSUED FOR CONSTRUCTION	S.H.	K.T.
5	05/06/14	ISSUED FOR PERMIT, PRICING & CONSTRUCTION	S.H.	B.H.

Seal/Signature

Project Name
AT&T GALVESTON SHERWOOD

Project Number
150498

CAD File Name
K:\PROJECTS\150498_AT&T_GALVESTON SHERWOOD CO\CAD FILES\-WORKING

Description
TITLE PAGE AND DRAWINGS INDEX

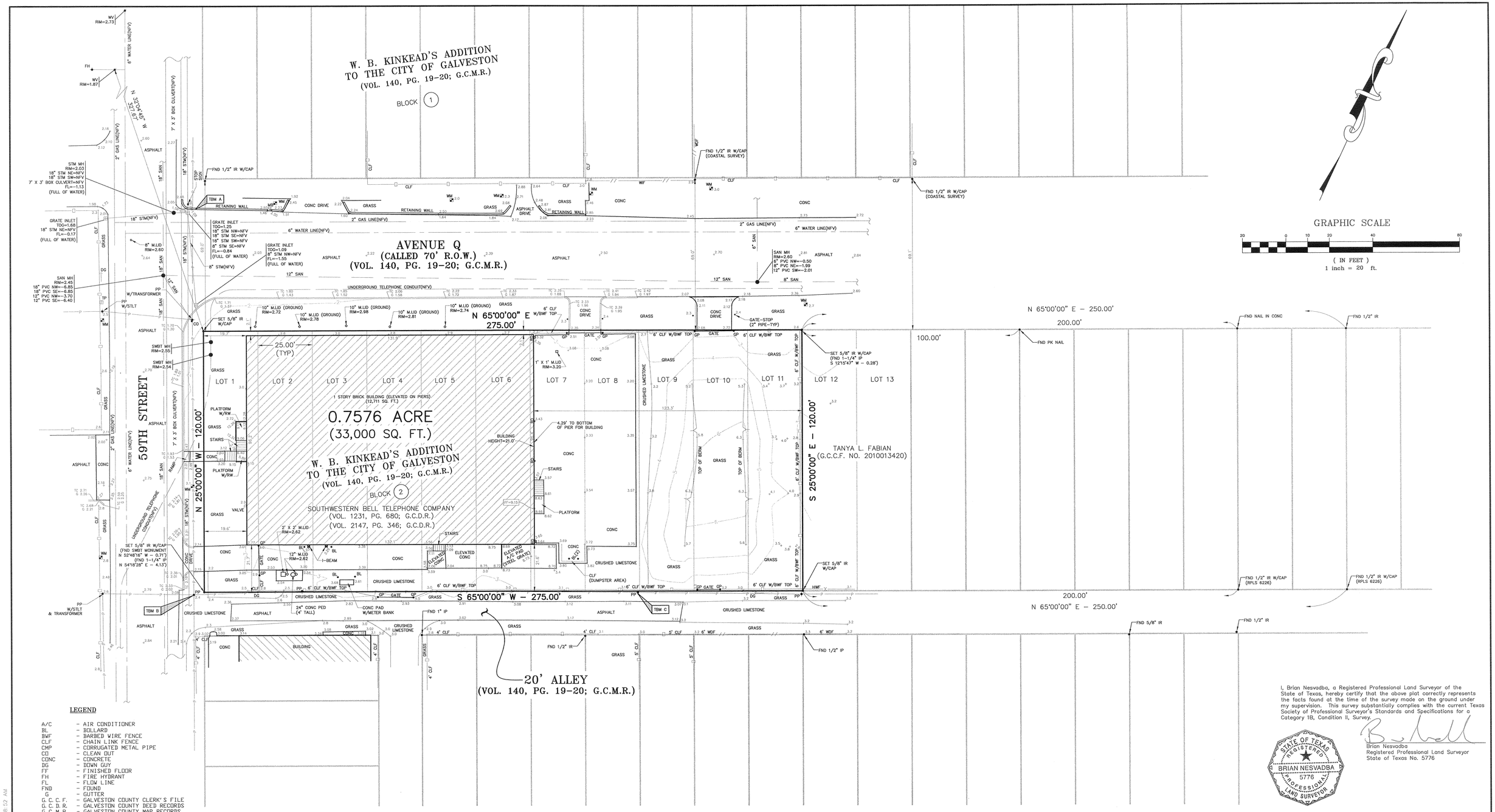
Scale
AS-NOTED

ALL SCALES ARE INDICATED FOR "L" SIZE DRAWINGS.

IF SHEET IS LESS THAN (30X42) IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY

G-1

22.3179.00 at&t Galveston Sherwood-UST Replacement w/ New AST



LEGEND

A/C	– AIR CONDITIONER
BL	– BOLLARD
BWF	– BARBED WIRE FENCE
CLF	– CHAIN LINK FENCE
CMP	– CORRUGATED METAL PIPE
CO	– CLEAN OUT
CONC	– CONCRETE
DG	– DOWN GUY
FF	– FINISHED FLOOR
FH	– FIRE HYDRANT
FL	– FLOW LINE
FND	– FOUND
G	– GUTTER
G.C.C.F.	– GALVESTON COUNTY CLERK'S FILE
G.C.D.R.	– GALVESTON COUNTY DEED RECORDS
G.C.M.R.	– GALVESTON COUNTY MAP RECORDS
GP	– GATE POST
HWF	– HOG WIRE FENCE
IP	– IRON PIPE
IR	– IRON ROD
M.LID	– METAL LID
MB	– MAILBOX
MH	– MANHOLE
-P-	– OVERHEAD POWER LINE
PED	– PEDESTAL
PP	– POWER POLE
RCP	– REINFORCED CONCRETE PIPE
R.O.W.	– RIGHT OF WAY
RW	– RETAINING WALL
SAN	– SANITARY
SQ.FT.	– SQUARE FEET
STLT	– STREET LIGHT
STM	– STORM
SWBT	– SOUTHWESTERN BELL TELEPHONE
TBM	– TEMPORARY BENCHMARK
TC	– TOP OF CURB
TDG	– TOP OF GRATE
TP	– TELEPHONE PEDESTAL
W/	– WITH
WDF	– WOOD FENCE
WIF	– WROUGHT IRON FENCE
WM	– WATER METER
WV	– WATER VALVE
(NFV)	– NOT FIELD VERIFIED
(TYP)	– TYPICAL

BENCHMARK:
"AC 8265" MARKER T 1516 IS A STAINLESS STEEL ROD IN SLEEVE STAMPED "T 1516 1996" LOCATED IN GALVESTON, NEAR THE INTERSECTION OF 61ST STREET AND HEARDS LANE.
ELEVATION=6.76' (NAVD 1988)

TBM A: BOX CUT ON TOP OF CURB AT THE INTERSECTION OF AVENUE Q AND 59TH STREET. (AS SHOWN HEREON)
ELEVATION=2.63'

TBM B: RAILROAD SPIKE IN POWER POLE AT THE INTERSECTION OF THE 20' ALLEY AND 59TH STREET. (AS SHOWN HEREON)
ELEVATION=3.86'

TBM C: RAILROAD SPIKE IN POWER POLE ON THE NORTH SIDE OF THE 20' ALLEY. (AS SHOWN HEREON)
ELEVATION=4.69'

LEGAL DESCRIPTION:

0.7576 ACRE (33,000 SQ. FT.),
BEING ALL OF LOTS 1–11, BLOCK 2,
W. B. KINKEAD'S ADDITION TO THE CITY OF GALVESTON
(VOL. 140, PG. 19–20; G.C.M.R.)
CITY OF GALVESTON, GALVESTON COUNTY, TEXAS

NOTES:

1.) BEARINGS SHOWN HEREON ARE BASED ON THE SOUTH RIGHT–OF–WAY LINE OF AVENUE Q, AS DESCRIBED IN VOL. 1231, PG. 680; G.C.D.R.

2.) THE SURVEYOR HAS NOT ABSTRACTED THIS PROPERTY. DEED INFORMATION SHOWN HEREON WAS RESEARCHED AND PROVIDED BY OTHERS.

3.) THE CERTIFICATE SHOWN HEREON IS VALID ONLY IF THIS DOCUMENT CONTAINS AN ORIGINAL STAMPED OR IMPRESSION SEAL AND SIGNATURE OF THE SURVEYOR. SAID CERTIFICATION SHALL NOT APPLY TO ANY COPIES OR ALTERED ORIGINALS.

4.) THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT. ADDITIONAL ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.

5.) ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP FOR CITY OF GALVESTON, GALVESTON COUNTY, TEXAS, COMMUNITY PANEL NO. 4854690024 E, EFFECTIVELY DATED DECEMBER 6, 2002, THIS PROPERTY LIES IN ZONE "AE", SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD WITH BASE FLOOD ELEVATIONS DETERMINED. THE BASE FLOOD ELEVATION FOR THIS SITE IS 11'.

6.) ALL RODS SET ARE 5/8" IRON RODS WITH CAPS STAMPED: T.E.A.M. – 281–491–2525.

7.) THIS TRACT OF LAND WAS SURVEYED IN THE FIELD ON AUGUST 17, 2013. ANY CHANGES MADE AFTER THIS DATE ARE NOT SHOWN HEREON.

8.) ALL UNDERGROUND UTILITIES MAY NOT BE SHOWN HEREON. THE LOCATIONS OF UTILITIES SHOWN HEREON ARE SHOWN PER RECORD DRAWINGS AND ABOVE GROUND EVIDENCE; SIZES, DEPTHS, AND LOCATIONS MAY VARY. FOR THE LOCATION OF ANY ADDITIONAL UTILITIES THAT MAY EXIST, PLEASE CALL THE "TEXAS ONE CALL" LOCATING SERVICE.

I, Brian Nesvadba, a Registered Professional Land Surveyor of the State of Texas, hereby certify that the above plat correctly represents the facts found at the time of the survey made on the ground under my supervision. This survey substantially complies with the current Texas Society of Professional Surveyor's Standards and Specifications for a Category 1B, Condition II, Survey.

STATE OF TEXAS
REGISTERED
BRIAN NESVADBA
5776
PROFESSIONAL
LAND SURVEYOR

Brian Nesvadba
Registered Professional Land Surveyor
State of Texas No. 5776

TEXAS ENGINEERING AND MAPPING
12810 CENTURY DRIVE
STAFFORD, TEXAS 77477
PHONE: 281.491.2525 FAX: 281.491.2535

STANDARD LAND AND TOPOGRAPHIC SURVEY

OF

A 0.7576 ACRE (33,000 SQ. FT.) TRACT OF LAND,
BEING ALL OF LOTS 1–11, BLOCK 2,
W. B. KINKEAD'S ADDITION TO THE CITY OF GALVESTON
(VOL. 140, PG. 19–20; G.C.M.R.)
CITY OF GALVESTON, GALVESTON COUNTY, TEXAS

G-2

CREW: RL	DRAWN BY: CEC	CALC. BY: BSN	CK.BY: BSN
DATE: 8–29–13	SCALE: 1"=20'	KEY MAP: 774 X	JOB NO.: 731–18

DRAWING INFO: Z:\dwg\731-18\731-18_BT.dwg AUG 30, 2013 8:52 AM

ABBREVIATIONS

@	AT
&	AND
A	AMP
AAV	AUTOMATIC AIR VENT
AB	ANCHOR BOLT
AE	AIR ELIMINATOR
AFF	ABOVE FINISHED FLOOR
AFFF	AQUEOUS FILM FORMING FOAM
A/G	ABOVEGROUND
AST	ABOVEGROUND STORAGE TANK
API	AMERICAN PETROLEUM INSTITUTE
ASTM	AMERICAN STANDARDS FOR TESTING AND MATERIALS
ATG	AUTOMATIC TANK GAUGING
AWG	AMERICAN WIRE GAUGE
AWS	AMERICAN WELDING SOCIETY
CAM	CALIFORNIA ALARM MANAGER
CEC	CALIFORNIA ENVIRONMENTAL CONSULTANT
CONN	CONNECT
CS	CARBON STEEL (LINED)
CONT	CONTINUATION
CW	CLOCKWISE
CV	CONTROL VALVE
DB	DRY BULB
DCPM	
DEG	DEGREE AND CONSTRUCTION PROJECT MANAGER
DIA	DIAMETER
DN	DOWN
DU	DIELECTRIC UNION
DW	DOUBLE WALLED
DWG	DRAWING
EA	EACH
EAMC	EMERGENCY ALARM MANAGEMENT CENTER
ELB	ELBOW
ESM	ENVIRONMENTAL SITE MANAGER
F	FAHRENHEIT
FCV	FLOW CONTROL VALVE
FF	FLAT FACE FLANGE
FP	FUEL PUMP
FL SW	FLOW SWITCH
F/S	FILTER SEPARATOR
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FTP	FUEL TRANSFER PUMP
GNFO	GLOBAL NETWORK FIELD OPERATOR
GPM	GALLONS PER MINUTE
HLCV	HIGH LEVEL CONTROL VALVE
HP	HORSE POWER
HPV	HIGH POINT VENT
IF	INSULATING FLANGE
INV	INVERT
IU	INSULATING UNION
JFP	JET FUEL PUMP
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH HIGH
LSL	LEVEL SWITCH LOW
LSLL	LEVEL SWITCH LOW-LOW
LI	LEVEL INDICATOR (ATG)
LPD	LOW POINT DRAIN
m	METER
m^3	CUBIC METER
MFR	MANUFACTURER
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MIN	MINIMUM
MLO	MAIN LINE ONLY
MOV	MOTOR OPERATED VALVE
MTP	MOGAS TRANSFER PUMP
NEMA	NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NOC	NETWORK OPERATIONS CENTER
NPT	NATIONAL PIPE THREAD
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OV	OVERFLOW VALVE
PAV	PETROLEUM APPROVED VENDOR
PRESS	PRESSURE
PSI	POUNDS PER SQUARE INCH
PST	PETROLEUM STORAGE TANK
R	RADIUS
RED	REDUCER
RF	RAISED FACE FLANGE
RGS	RIGID GALVANIZED STEEL
RMC	RIGID METAL CONDUIT
RPM	REVOLUTIONS PER MINUTE
SCHED	SCHEDULE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
SW	SOCKET WELD
TRV	THERMAL RELIEF VALVE
U/G	UNDERGROUND
USA	UNDERGROUND SERVICE ALERT
VEH	VEHICLE
W/	WITH
W/O	WITHOUT
WDO	WATER DRAW-OFF
WDP	WATER DRAW-OFF PUMP
WT	WEIGHT
WWF	WELDED WIRE FABRIC

MECHANICAL LEGEND

- GATE VALVE
- BALL VALVE
- BALL VALVE, FULL PORT
- CHECK VALVE
- CHECK VALVE W/ SOLENOID
- CHECK VALVE W/ FIRE PROTECTION
- CONTROL VALVE
- PLUG VALVE, DOUBLE BLOCK AND BLEED
- PLUG VALVE, FULL PORT DOUBLE BLOCK AND BLEED
- BUTTERFLY VALVE
- VALVE IN RISE
- FLOW SWITCH
- ABOVEGROUND PIPE
- UNDERGROUND PIPE
- UNDERGROUND CONDUIT & CONTROL WIRING
- BLIND FLANGE
- CAP
- QUICK CONNECTOR
- FLEXIBLE CONNECTION
- UNIVERSAL EXPANSION JOINT
- PRESSURE/VACUUM VENT
- SAMPLE CONNECTION
- SIGHT FLOW INDICATOR
- RELIEF VALVE OR
- BALL CHECK RELIEF
- LINE SIZE REDUCER
- BASKET STRAINER
- PRESSURE GAUGE
- MANUAL AIR VENT or
- LOW POINT DRAIN XXX
- TURBINE METER (DIAGRAMMATIC)
- AIRCRAFT ADAPTER
- FUELING HOSE
- SWIVEL JOINT
- 90 DEG ELBOW DOWN
- AUTOMATIC TANK GAUGE ATG
- METER M
- SOLENOID
- EMERGENCY EYE WASH & SHOWER
- CONNECT TO EXISTING
- FOOT VALVE
- HAND PUMP
- UNION
- ANTI-SIPHON VALVE
- PUMP

ELECTRICAL LEGEND

- FLEXIBLE METAL CONDUIT
- CIRCUIT BREAKER
- J — JUNCTION BOX
- M XXX — MOTOR, HP AS INDICATED
- C — CONTROL CABLE
- P — POWER CABLE
- G — POWER CABLE
- M/S — MOTOR STARTER
- EMERGENCY FUEL SHUTOFF
- GROUND ROD

GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NOTIFICATION AND SCHEDULING IN CONNECTION WITH PETROLEUM STORAGE TANKS REQUIREMENTS AND SHALL MAINTAIN A SITE SPECIFIC SITE SAFETY PLAN DURING ALL WORK ACTIVITIES.
2. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY FOR THE SATISFACTORY COMPLETION OF ALL WORK CALLED FOR OR REQUIRED BY THE CONTRACT DOCUMENTS.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING:
   A. INTERNATIONAL FIRE CODE, 2009 EDITION
   B. NFPA 30, 2012 EDITION
   C. NFPA 70, 2011 EDITION
   D. PEI RP200 AS THE INDUSTRY STANDARD FOR INSTALLATION OF ABOVEGROUND PETROLEUM STORAGE TANKS.
4. GENERAL CONTRACTOR SHALL PROTECT ALL EXISTING FACILITY TO REMAIN UNLESS NOTED OTHERWISE. CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING FACILITY WHICH ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS TO THE SATISFACTION OF AT&T.
5. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION(S) AND/OR EXISTENCE OF ALL UNDERGROUND UTILITIES IN WORK AREA PRIOR TO CONSTRUCTION WITH A PRIVATE UTILITY LOCATOR.
6. GENERAL CONTRACTOR, UNLESS OTHERWISE DETERMINED, SHALL APPLY AND PAY FOR ALL PERMITS REQUIRED FOR THE COMPLETION OF THIS PROJECT. CONTRACTOR TO SUPPLY CERTIFICATE OF INSURANCE, CITY BUSINESS LICENSE, EVIDENCE OF CONTRACTORS LICENSE AND ANY OTHER INFORMATION WHICH THE PERMITTING AGENCY REQUIRES FROM CONTRACTOR.
7. GENERAL CONTRACTOR SHALL NOTIFY THE ENGINEER PROMPTLY IF SITE CONDITIONS OR DIMENSIONS DISAGREE WITH INFORMATION SHOWN ON THESE DRAWINGS. WORK IS NOT TO PROCEED UNTIL SUCH DIFFERENCES ARE RESOLVED.
8. GENERAL CONTRACTOR SHALL PROVIDE A DETAILED METHOD OF PROCEDURE (M.O.P.) TO AT&T FOR APPROVAL PRIOR TO START OF CONSTRUCTION, M.O.P SHALL INCLUDE BUILDING VENTILATION SAFETY PROCEDURES.
9. GENERAL CONTRACTOR SHALL SUPPLY AT&T WITH DETAILED WORK SCHEDULE AND UPDATE PROGRESS AND/OR CHANGES ON A WEEKLY BASIS.
10. CONTRACTOR SHALL PROVIDE THREE SETS OF SUBMITTALS ON ALL EQUIPMENT TO THE ENGINEER PRIOR TO START OF CONSTRUCTION.
11. CONTRACTOR SHALL SUPPLY FIVE COMPLETE SETS OF OPERATION, MAINTENANCE AND TEST DATA TO AT&T.
12. NEW TANKS AND PIPING SHALL BE TESTED IN ACCORDANCE WITH APPLICABLE REGULATIONS AND SPECIFICATION. SEE TESTING PLAN THIS SHEET.
13. THE CONTRACTOR SHALL COMPLY WITH ALL DUST CONTROL REQUIREMENTS AS SET FORTH BY THE FACILITY SUPERVISOR OR HIS DESIGNATED REPRESENTATIVE WHEN DRILLING, CORING, OR OTHERWISE MAKING HOLES OR PENETRATIONS INSIDE THE FACILITY BUILDING, INCLUDING SCREW HOLES FOR CONDUIT SUPPORTS, ETC. AS A MINIMUM EFFORT, THE CONTRACTOR SHALL CONTAIN AND COLLECT ALL DUST BY MEANS OF PLASTIC SHEET ISOLATION OF THE WORK AREA AND VACUUMING THE DUST AS IT OCCURS.
14. NO WORK SHALL BE PERFORMED OVER TELEPHONE SWITCH EQUIPMENT WITHOUT A M.O.P (METHOD OF PROCEDURE).
15. AT&T EH&S SHALL PERFORM 6 MONTH COMPLIANCE TESTING. ANY FAILURES ARE THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR.
16. IF ANY OF THE REQUIRED COMPLIANCE TESTING HAS TO BE RESCHEDULED DUE TO A FAILED TEST OR INCOMPLETE WORK, THE CONTRACTOR WILL BE SOLELY LIABLE FOR ANY ADDITIONAL PERMITS AND TESTING COST. ALL PETROLEUM STORAGE TANK SYSTEM WORK RELATED TO COMPLIANCE TESTING MUST BE 100% COMPLETE, FUNCTIONAL AND READY FOR TESTING AND CERTIFICATION (IE. TLS-350-ALL WIRING CONNECTIONS MADE, UNIT PROGRAMMED AND END-TO-END CONNECTION/VERIFICATIONS MADE. LINES TO BE QA/QC CHECKED, ISOLATED AND CAPPED; BULKHEAD FITTING SECURE, CONTAINMENT BOOT IN PLACE...ETC).
17. CONTRACTOR MUST NOTIFY THE LOCAL AUTHORITY 48 HOURS PRIOR TO DISCONNECTING THE VEEDER ROOT TLS-350 MONITORING SYSTEM FOR ANY REASON, CONTRACTORS MUST NOTIFY THE LOCAL AUTHORITY AND RECEIVE WRITTEN CONFIRMATION 48 HOURS IN ADVANCE OF ACTIVITY. CONTRACTORS MUST ALSO PROVIDE SUPPLEMENTAL NOTICE 15 MINUTES PRIOR TO DISCONNECTING. THE DISCONNECT/MODIFICATION MUST BE DONE BY A VEEDER ROOT CERTIFIED LEVEL 4 TECHNICIAN.
18. CONTRACTOR SHALL VERIFY EXACT TANK DIMENSIONS AND SIZE TANK SLAB PER MANUFACTURER'S WARRANTY AND STRUCTURAL DRAWINGS. TANK SLAB TO ENCOMPASS FOOTPRINT OF TANK ACCESS STEPS/STAIRS.

PIPE INSTALLATIONS NOTES:

1. ALL FUEL OIL SUPPLY, RETURN AND VENT PIPING SHALL BE ROUTED AS INDICATED ON PLANS.
2. ABOVEGROUND EXTERIOR FUEL OIL SUPPLY, RETURN AND VENT PIPING SHALL BE ASTM A53 SCHEDULE 40 DOMESTIC (NORTH AMERICA) BLACK STEEL PIPE WITH WELDED JOINTS. ABOVEGROUND EXTERIOR FUEL SUPPLY AND RETURN PIPING SHALL BE IN SECONDARY CONTAINMENT.
3. ALTERNATE #1: CONTRACTOR SHALL PROVIDE PRICING FOR OMEGAFLEX, DOUBLETRAC PIPING. CONTACT: GARY BAKER 713-409-5227
4. ABOVEGROUND INTERIOR FUEL OIL SUPPLY AND RETURN PIPING INSTALLED IN AREAS WITHOUT CONTAINMENT SHALL BE INSTALLED WITH SECONDARY CONTAINMENT PIPE.
5. ALL SECONDARY PIPING SHALL BE ASME A358 SCHEDULE 10, GRADE 304L, STAINLESS STEEL PIPE.
6. PROVIDE ADEQUATE PIPE SUPPORTS WHERE REQUIRED.
7. INSTALL ALL PIPING THAT IS NOT SECONDARY CONTAINED IN A MANNER THAT WILL ALLOW VISUAL INSPECTION OF THE ENTIRE PIPING SYSTEM INCLUDING TOP, SIDES, AND BOTTOM. IF PIPING IS INSTALLED IN A CONCRETE TRENCH MAKE IT ACCESSIBLE BY REMOVABLE GRATES. IF PIPING IS COVERED BY PEDESTRIAN RAMP, EQUIP THE RAMP WITH A HINGED INSPECTION DOOR. CHECK WITH AUTHORITY HAVING JURISDICTION FOR CLEARANCE REQUIREMENTS.
8. ALL EXPOSED PIPING SHALL BE MARKED AT INTERVALS NO GREATER THAN EVERY TWENTY (20) FEET WITH PRODUCT COLOR-CODED DIRECTIONAL FLOW ARROWS. LINES SHALL BE MARKED AT EACH CHANGE IN DIRECTION AND WHERE WALL, CEILING, OR FLOOR PENETRATIONS OCCUR. IF LINES ARE SHORTER THAN TWENTY (20) FEET, MARKINGS SHALL APPEAR AT LEAST ONCE ALONG THEIR LENGTH. ALL PIPING SHALL BE LABELED IN ACCORDANCE WITH ASME STANDARD A13.1 "SCHEME FOR IDENTIFICATION OF PIPING SYSTEMS.
9. ALL EXPOSED PIPING SHALL BE COATED WITH A SURFACE TOLERANT EPOXY AND AN ENAMEL, YELLOW TOPCOAT.

GENERAL CONDITIONS:

COORDINATION:

1. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK.
2. THE GENERAL CONTRACTOR SHALL RESOLVE DIFFERENCES OR DISPUTES CONCERNING COORDINATION, INTERFERENCE, OR EXTENT OF WORK.
3. USE LARGE-SCALE LAYOUT DRAWINGS OF OTHER AFFECTED WORK, TO CHECK, COORDINATE, AND INTEGRATE THE WORK TO PREVENT INTERFERENCES.
4. COORDINATE WORK PERFORMED BY AT&T AND OTHERS AS IT INVOLVES THE EXECUTION OF THIS WORK.
5. COORDINATE DELIVERY AND STORAGE OF AT&T FURNISHED EQUIPMENT AND FUEL FOR TESTING.

CUTTING AND PATCHING:

1. PATCHING SHALL SUCCESSFULLY DUPLICATE UNDISTURBED ADJACENT FINISHES, COLORS, TEXTURES AND PROFILES.
2. COMPLY WITH ALL LOCAL ORDINANCES AND OSHA REGULATIONS FOR INDUSTRIAL SAFETY. DO NOT CUT OR ALTER STRUCTURAL MEMBERS WITHOUT PRIOR WRITTEN APPROVAL OF AT&T.
3. PERFORM CUTTING, ASSOCIATED STRUCTURAL REINFORCING AND PATCHING IN A MANNER TO PREVENT DAMAGE TO OTHER WORK AND TO PROVIDE PROPER SURFACES FOR THE INSTALLATION OF MATERIALS, EQUIPMENT AND REPAIRS. PERFORM DEMOLITION WORK IN SUCH MANNER AS TO PREVENT DAMAGE TO EXISTING FACILITY TO REMAIN OR TO BE SALVAGED, AND TO PREVENT INJURY TO PUBLIC AND WORKERS ENGAGED ON SITE UNDER THIS OR OTHER CONTRACT. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO ACCUMULATE ON SITE. HAZARDOUS WORK SHALL NOT BE LEFT STANDING OR HANGING OVERNIGHT OR WEEKENDS.
4. WHENEVER CUTTING AND REMOVAL OF PORTIONS OF EXISTING WORK IS INDICATED, SUCH WORK SHALL BE CUT IN A MANNER THAT WILL PRODUCE NEAT AND STRAIGHT LINES, PARALLEL TO ADJACENT SURFACES OR PLUMB FOR VERTICAL SURFACES. GRIND SMOOTH RESULTING EDGES OF CONCRETE SLABS OR WALKS.
5. NEATLY REMOVE EXISTING FINISH MATERIAL BACK TO A CLEAN STRAIGHT LINE ON NEAREST SUPPORT IN ORDER TO FACILITATE INSTALLATION OF NEW MATERIALS, PATCHES OR REPAIRS. EXECUTE CUTTING AND DEMOLITION BY METHODS WHICH WILL PREVENT DAMAGE TO OTHER WORK AND WHICH WILL PROVIDE PROPER SURFACE TO RECEIVE INSTALLATION OF REPAIRS AND NEW WORK.
6. KEEP AREAWAYS, WALKS, CORRIDORS AND STREETS FREE OF DIRT AND RUBBISH.
7. REPAIR OR REPLACE IMPROVEMENTS DAMAGED AS A RESULT OF THIS WORK AT NO ADDITIONAL EXPENSE TO AT&T.
8. PROVIDE WATER DAMS AND OTHER CONTAINMENT PROCEDURES AS NECESSARY, FOR CONTROLLING WATER USED FOR CONCRETE SAW CUTTING.

TESTING PLAN:

1. PRIOR TO BEING PLACED IN SERVICE, TANKS AND ASSOCIATED PIPING SHALL BE FIELD TESTED IN ACCORDANCE WITH THE TABLE ON THIS SHEET.
2. IF THE MANUFACTURER'S SPECIFICATIONS DO NOT SUPPORT THE TESTING PROCEDURES, FOLLOW THE MANUFACTURER'S RECOMMENDED PROCEDURE.

GENERAL ELECTRICAL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR DESIGN AND CONSTRUCTION OF AST AND DAY TANK ELECTRICAL SYSTEMS. THE PRIMARY WORK TASK INCLUDE THE FOLLOWING:
   A. CONFIRM THE POWER DISTRIBUTION SUBPANEL SERVING AST AND DAY TANK IS SUFFICIENT FOR UPGRADE LOADS. UPGRADE SYSTEM LOADS ARE GENERATED BY NEW PUMPS (3ea, SEE PUMP SCHEDULE), VEEDER-ROOT SYSTEM AND ANCILLARY SENSORS AND ALARMS.
   B. PROVIDE AND INSTALLATION OF NEW CIRCUIT BREAKERS PER NFPA 70. EACH PRIMARY SYSTEM COMPONENT SHALL HAVE INDIVIDUAL CIRCUIT BREAKERS.
   C. PROVIDE AND INSTALLATION OF INDIVIDUAL CONDUITS AND CONDUCTORS TO FULLY POWER AND CONTROL NEW AST AND DAY TANK SYSTEMS. IT SHOULD BE NOTED THAT POWER AND CONTROL CONDUCTORS CANNOT BE INSTALLED WITHIN THE SAME CONDUITS. ALL CONDUITS AND CONDUCTORS SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH NFPA70.
   D. PROVIDE AND INSTALLATION OF NEW PUMP CONTROL PANEL (PCP) THAT HOUSES APPROPRIATELY SIZED MOTOR STARTERS AND NECESSARY CONTROL CIRCUITRY FOR THE 3 SYSTEM PUMPS INDIVIDUAL PUMP MANUAL/AUTOMATIC/STOP SWITCHES SHALL BE INSTALLED ON THE PCP. PCP ENCLOSURE SHALL BE NEMA 12 FOR INTERIOR INSTALLATION.
   E. PROVIDE AND INSTALLATION OF AN EMERGENCY STOP BUTTON AT THE POINT OF EGRESS FROM THE GENERATOR ROOM THAT WILL STOP ALL PUMP OPERATIONS IN THE EVENT OF AN EMERGENCY.
2. ALL ELECTRICAL WORK SHALL BE DONE IN COMPLIANCE WITH CHAPTER 5, ARTICLES 500-50 AND 514 OF NFPA 70. SEAL ALL CONDUITS AS REQUIRED UNDER THE CODE.
3. INSULATED FITTINGS TO BE USED ON ALL UNDERGROUND PIPING & CONDUITS AFTER BUILDING PENETRATION.
4. PROVIDE INDIVIDUAL RIGID CONDUIT RUNS WITH SEAL-OFFS FOR BUILDING AUTOMATION SYSTEM AND VEEDER ROOT PROBES AND SENSORS.
5. POWER, CONTROL, AND MONITORING CONDUCTORS SHALL NOT BE ROUTED IN THE SAME CONDUIT.
6. ALL CONDUITS TO HAVE SEAL-OFFS PER LATEST EDITION OF THE NATIONAL ELECTRIC CODE. ALL J-BOXES TO BE EXPLOSION PROOF.
7. POWER FOR THE VEEDER ROOT TANK MONITORING CONSOLE SHALL BE PROVIDED BY A DEDICATED CIRCUIT. ALL PROBE AND SENSOR WIRING MUST BE INSTALLED INSIDE A SEALED CONDUIT IN ORDER TO MAINTAIN AN INTRINSICALLY SAFE CIRCUIT.
8. USE CABLE CONNECTOR FITTINGS [CROSS-HINDS CGB OR EQUIVALENT] AT TANK MONITOR, LIQUID LEVEL PROBES, AND SENSOR CABLE CONNECTIONS TO J-BOXES & PIPE FITTINGS IN SUMP BOXES.
9. ALL UNDERGROUND CONDUITS SHALL BE PVC COATED STEEL FOR CORROSION PROTECTION.
10. ALL OUTDOOR CONDUITS SHALL BE ALUMINUM.
11. ALL CONDUITS TO BE A MINIMUM 3/4" UNLESS NOTED OTHERWISE.
12. AS A MINIMUM, GROUND THE ABOVEGROUND STORAGE TANK AND STEEL PIPING IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND NFPA 780 REQUIREMENTS.
13. LOCATION OF NEW CONDUIT RUNS SHALL BE REVIEWED AND APPROVED BY AT&T ENGINEER PRIOR TO INSTALLATION.

HAZARDOUS ELECTRICAL INSTALLATION NOTES:

1. IN AN OUTSIDE LOCATION, ANY AREA UP TO 18" ABOVE GRADE LEVEL WITHIN 5'-0" HORIZONTALLY FROM ANY TIGHT TANK FILL PIPE SHALL BE CLASSIFIED AS A CLASS 1, DIVISION 2 HAZARDOUS AREA.
2. THE SPHERICAL VOLUME WITHIN 3'-0" RADIUS OF ANY TANK VENT PIPE SHALL BE CLASSIFIED AS CLASS 1, DIVISION 1 HAZARDOUS AREA, BETWEEN 3'-0" AND 5'-0" RADIUS AS CLASS 1, DIVISION 2 HAZARDOUS AREA.
3. ALL ELECTRICAL CONDUITS, FITTINGS, ETC. IN THESE AREAS SHALL CONFORM TO THE LATEST EDITION OF NFPA 70, ARTICLE 514. ELECTRICAL WIRING AND EQUIPMENT BELOW A HAZARDOUS AREA SHALL BE RATED FOR CLASS 1, DIVISION 1. PROVIDE SEAL-OFFS FITTINGS ON ALL CONDUITS ENTERING OR LEAVING A HAZARDOUS AREA.

CONCRETE NOTES:

1. ALL CONCRETE SHALL DEVELOP THE FOLLOWING MINIMUM ULTIMATE COMPRESSIVE STRENGTHS AS FOLLOWS:

ELEMENT	28 DAY STRENGTH (PSI)
ALL CONCRETE WORK	4000

2. ADMIXTURES:
   A. ALL PAVEMENT AND CURBS - USE WATER REDUCING AND RETARDING ADMIXTURE (2 HOUR RETARDATION).
   B. OTHER CONCRETE - USE OF ADMIXTURE AT CONTRACTOR'S OPTION, BUT SUBJECT TO ENGINEER'S APPROVAL.
3. THE USE OF CALCIUM CHLORIDE, OR ADMIXTURES CONTAINING CALCIUM CHLORIDE IN ANY CONCRETE IS PROHIBITED.

REINFORCING STEEL NOTES

1. STRENGTHS - UNLESS OTHERWISE NOTED ON PLANS, ALL REINFORCEMENT BARS SHALL BE ASTM A615, GRADE 40 OR GRADE 60.
2. SPLICES: - LENGTHS SHALL BE 32 BAR DIAMETERS OR 2'-0" WHICHEVER IS GREATER, UNLESS OTHERWISE SHOWN.
3. MINIMUM CONCRETE CLEAR COVER:
   A. CAST AGAINST EARTH. . . . . 3"
   B. POURED AGAINST FORMS AND LATER EXPOSED TO EARTH . . . . . 2"
   C. EXPOSED TO WEATHER. . . . . 2"
4. BAR BENDS, HOOKS, AND OFFSETS SHALL BE IN ACCORDANCE WITH THE ACI 350 RECOMMENDATIONS.

ABOVE GROUND TANK SPECIFICATIONS:

1. MATERIALS: ONLY NEW MATERIAL SHALL BE USED IN THE MANUFACTURING PROCESS, AND THE MANUFACTURER SHALL ENSURE THAT THE MATERIAL USED MEETS ALL APPROPRIATE SPECIFICATIONS AND QUALITY ASSURANCE REQUIREMENTS.
2. DIMENSIONAL REQUIREMENTS FOR RECTANGULAR TANKS :
   A. NOMINAL CAPACITY OF THE TANKS SHALL BE AS INDICATED ON SHEET F-4.
   B. MINIMAL MATERIAL THICKNESS OF THE TANKS SHALL BE PER UL-142 REQUIREMENTS.
   C. MINIMUM ANNULAR SPACE INSULATION THICKNESS MATERIAL TO BE 3". ONLY UL-2085 LISTED INSULATION MATERIAL SHALL BE USED.
3. LOADING CONDITIONS: TANKS SHALL MEET THE FOLLOWING DESIGN CRITERIA.
   A. INTERNAL LOAD: RECTANGULAR TANKS SHALL WITHSTAND AN AIR PRESSURE TEST OF 1.5 TO 2 PSI, CYLINDRICAL TANKS SHALL BE ABLE TO WITHSTAND AIR PRESSURE TEST OF 3 TO 5 PSI.
   B. TANKS SHALL BE DESIGNED TO SUPPORT ACCESSORY EQUIPMENT SUCH AS LADDERS, PUMPS, ETC. WHEN INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND LIMITATIONS.
   C. TANKS SHALL BE PROVIDED WITH SUITABLY DESIGNED AND LOCATED LIFTING LUGS WHICH HAVE A 2:1 SAFETY FACTOR.
4. PRODUCT STORAGE REQUIREMENTS:
   A. TANKS SHALL BE CAPABLE OF STORING DIESEL FUEL AT AMBIENT TEMPERATURE.
   B. TANK IS DESIGNED FOR OPERATION AT ATMOSPHERIC PRESSURE ONLY. BOTH INNER AND OUTER TANKS SHALL HAVE OPENINGS OF SUFFICIENT SIZE TO MEET NORMAL AND EMERGENCY VENTING REQUIREMENTS STATED IN U.L. 142, UFC AND NFPA.
5. ACCESSORIES:
   5.1. CERTIFICATION PLATE: UNDERWRITERS LABORATORIES LABE "INSULATED SECONDARY CONTAINMENT ABOVEGROUND TANK FOR FLAMMABLE LIQUIDS" SHALL BE FIXED TO EACH TANK.
   5.2. FITTINGS: THREADED/NPT
      A. ALL THREADED FITTINGS SHALL BE OF A MATERIAL OF CONSTRUCTION CONSISTENT WITH THE REQUIREMENTS OF THE UNDERWRITERS LABORATORIES. ALL FITTINGS SHALL BE PROTECTED USING THREADED PLUGS OR SUITABLE CLOSURE CAPS.
      B. NOZZLE FITTINGS: SHALL BE AS INDICATED ON SHEET F-4.
      C. MANWAYS: MANWAYS SHALL CONFORM TO UNDERWRITERS LABORATORIES 142 STANDARD WITH REGARD TO CONSTRUCTION, BOLTING AND GASKETS.
      D. MANWAYS: LOCATION, REFER TO SHEET F-4.
      E. STEEL TANK SUPPORTS: DESIGN OF THE STEEL SUPPORTS SHALL BE PER APPROVED UL LISTING AND BE ABLE TO SUPPORT THE WEIGHT OF THE TANK FILLED TO CAPACITY.
6. INSTALLATION:
   6.1. TANK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MOST RECENT INSTALLATION INSTRUCTIONS PROVIDED BY THE TANK MANUFACTURER, UFC, NFPA, LOCAL ORDINANCE, RECOGNIZED ENGINEERING PROCEDURE, AND OTHER APPLICABLE CODES.

DETAIL IDENTIFICATION

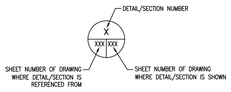
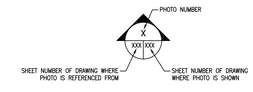


PHOTO IDENTIFICATION



PRESSURE TESTING PLAN (NFPA 30 REGULATIONS)

TEST TYPE	FIELD TEST	DURATION
PRIMARY TANK TEST	3 TO 5 P.S.I.G.	60 MINUTES
SECONDARY TANK TEST	3 TO 5 P.S.I.G.	60 MINUTES
PRIMARY PIPING TEST	HYDROSTATICALLY AT 50 P.S.I.G.	SUFFICIENT TIME PERIOD TO COMPLETE VISUAL INSPECTION OF JOINTS AND CONNECTIONS. MINIMUM OF 10 MINUTES WITH NO LEAKAGE OR PERMANENT DISTORTION.
SECONDARY PIPING TEST	5 P.S.I.G.	SUFFICIENT TIME PERIOD TO COMPLETE VISUAL INSPECTION OF JOINTS AND CONNECTIONS. MINIMUM OF 10 MINUTES WITH NO LEAKAGE OR PERMANENT DISTORTION.

ALL SCALES ARE INDICATED FOR "L" SIZE DRAWINGS.

at&t

CORPORATE REAL ESTATE

AT&T GALVESTON SHERWOOD
2102 59TH ST.
GALVESTON, TX 77551

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711 Louisiana Street
Suite 300
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AT&T PROJECT NUMBER 9232644	AT&T AUTHORIZATION
GEOLOC # WN5200	RUBEN MARTINEZ AT&T PROJECT MANAGER

	Issue	Date & Issue Description	By	Check
1		09/16/13 ISSUED FOR REVIEW	S.H.	B.M.
2		10/30/13 ISSUED FOR REVIEW	S.H.	A.W.
3		12/10/13 ISSUED FOR BID	S.H.	A.W.
4		01/17/14 ISSUED FOR CONSTRUCTION	S.H.	K.T.
5		05/06/14 ISSUED FOR PERMIT, PRICING & CONSTRUCTION	S.H.	B.H.

Seal/Signature

SHAW ENVIRONMENTAL, INC. — STATE OF TEXAS — BRANDON W. HAGGARD — 94743 — LICENSED — PROFESSIONAL ENGINEER — F-005650

The seal appearing on this document was authorized by Brandon W. Haggard, P.E. 94743 on 05-06-2014

Project Name
AT&T GALVESTON SHERWOOD

Project Number
150498

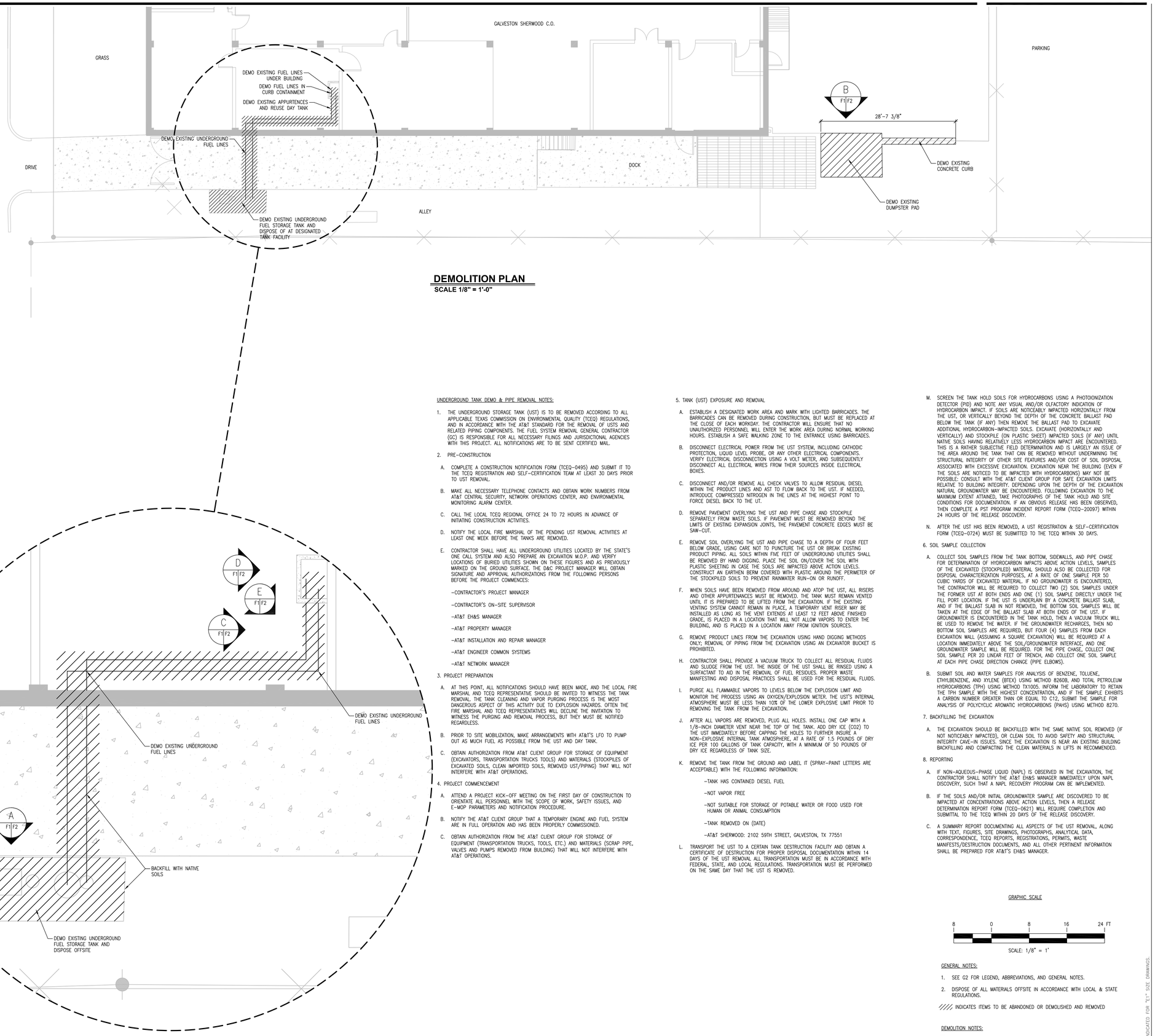
CAD File Name
K:\PROJECTS\150498_AT&T_GALVESTON SHERWOOD CO\CAD FILES\-WORKING

Description
LEGENDS, ABBREVIATIONS AND GENERAL NOTES

Scale
NTS

G-3

IF SHEET IS LESS THAN (30X42) IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY



DEMOLITION PLAN

SCALE 1/8" = 1'-0"

UNDERGROUND TANK DEMO & PIPE REMOVAL NOTES:

1. THE UNDERGROUND STORAGE TANK (UST) IS TO BE REMOVED ACCORDING TO ALL APPLICABLE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) REGULATIONS, AND IN ACCORDANCE WITH THE AT&T STANDARD FOR THE REMOVAL OF USTS AND RELATED PIPING COMPONENTS. THE FUEL SYSTEM REMOVAL GENERAL CONTRACTOR (GC) IS RESPONSIBLE FOR ALL NECESSARY FILINGS AND JURISDICTIONAL AGENCIES WITH THIS PROJECT. ALL NOTIFICATIONS ARE TO BE SENT CERTIFIED MAIL.

2. PRE-CONSTRUCTION

   A. COMPLETE A CONSTRUCTION NOTIFICATION FORM (TCEQ-0495) AND SUBMIT IT TO THE TCEQ REGISTRATION AND SELF-CERTIFICATION TEAM AT LEAST 30 DAYS PRIOR TO UST REMOVAL.

   B. MAKE ALL NECESSARY TELEPHONE CONTACTS AND OBTAIN WORK NUMBERS FROM AT&T CENTRAL SECURITY, NETWORK OPERATIONS CENTER, AND ENVIRONMENTAL MONITORING ALARM CENTER.

   C. CALL THE LOCAL TCEQ REGIONAL OFFICE 24 TO 72 HOURS IN ADVANCE OF INITIATING CONSTRUCTION ACTIVITIES.

   D. NOTIFY THE LOCAL FIRE MARSHAL OF THE PENDING UST REMOVAL ACTIVITIES AT LEAST ONE WEEK BEFORE THE TANKS ARE REMOVED.

   E. CONTRACTOR SHALL HAVE ALL UNDERGROUND UTILITIES LOCATED BY THE STATE'S ONE CALL SYSTEM AND ALSO PREPARE AN EXCAVATION M.O.P. AND VERIFY LOCATIONS OF BURIED UTILITIES SHOWN ON THESE FIGURES AND AS PREVIOUSLY MARKED ON THE GROUND SURFACE. THE D&C PROJECT MANAGER WILL OBTAIN SIGNATURE AND APPROVAL AUTHORIZATIONS FROM THE FOLLOWING PERSONS BEFORE THE PROJECT COMMENCES:

   -CONTRACTOR'S PROJECT MANAGER

   -CONTRACTOR'S ON-SITE SUPERVISOR

   -AT&T EH&S MANAGER

   -AT&T PROPERTY MANAGER

   -AT&T INSTALLATION AND REPAIR MANAGER

   -AT&T ENGINEER COMMON SYSTEMS

   -AT&T NETWORK MANAGER

3. PROJECT PREPARATION

   A. AT THIS POINT, ALL NOTIFICATIONS SHOULD HAVE BEEN MADE, AND THE LOCAL FIRE MARSHAL AND TCEQ REPRESENTATIVE SHOULD BE INVITED TO WITNESS THE TANK REMOVAL. THE TANK CLEANING AND VAPOR PURGING PROCESS IS THE MOST DANGEROUS ASPECT OF THIS ACTIVITY DUE TO EXPLOSION HAZARDS. OFTEN THE FIRE MARSHAL AND TCEQ REPRESENTATIVES WILL DECLINE THE INVITATION TO WITNESS THE PURGING AND REMOVAL PROCESS, BUT THEY MUST BE NOTIFIED REGARDLESS.

   B. PRIOR TO SITE MOBILIZATION, MAKE ARRANGEMENTS WITH AT&T'S LFO TO PUMP OUT AS MUCH FUEL AS POSSIBLE FROM THE UST AND DAY TANK.

   C. OBTAIN AUTHORIZATION FROM AT&T CLIENT GROUP FOR STORAGE OF EQUIPMENT (EXCAVATORS, TRANSPORTATION TRUCKS TOOLS) AND MATERIALS (STOCKPILES OF EXCAVATED SOILS, CLEAN IMPORTED SOILS, REMOVED UST/PIPING) THAT WILL NOT INTERFERE WITH AT&T OPERATIONS.

4. PROJECT COMMENCEMENT

   A. ATTEND A PROJECT KICK-OFF MEETING ON THE FIRST DAY OF CONSTRUCTION TO ORIENTATE ALL PERSONNEL WITH THE SCOPE OF WORK, SAFETY ISSUES, AND E-MOP PARAMETERS AND NOTIFICATION PROCEDURE.

   B. NOTIFY THE AT&T CLIENT GROUP THAT A TEMPORARY ENGINE AND FUEL SYSTEM ARE IN FULL OPERATION AND HAS BEEN PROPERLY COMMISSIONED.

   C. OBTAIN AUTHORIZATION FROM THE AT&T CLIENT GROUP FOR STORAGE OF EQUIPMENT (TRANSPORTATION TRUCKS, TOOLS, ETC.) AND MATERIALS (SCRAP PIPE, VALVES AND PUMPS REMOVED FROM BUILDING) THAT WILL NOT INTERFERE WITH AT&T OPERATIONS.

5. TANK (UST) EXPOSURE AND REMOVAL

   A. ESTABLISH A DESIGNATED WORK AREA AND MARK WITH LIGHTED BARRICADES. THE BARRICADES CAN BE REMOVED DURING CONSTRUCTION, BUT MUST BE REPLACED AT THE CLOSE OF EACH WORKDAY. THE CONTRACTOR WILL ENSURE THAT NO UNAUTHORIZED PERSONNEL WILL ENTER THE WORK AREA DURING NORMAL WORKING HOURS. ESTABLISH A SAFE WALKING ZONE TO THE ENTRANCE USING BARRICADES.

   B. DISCONNECT ELECTRICAL POWER FROM THE UST SYSTEM, INCLUDING CATHODIC PROTECTION, LIQUID LEVEL PROBE, OR ANY OTHER ELECTRICAL COMPONENTS. VERIFY ELECTRICAL DISCONNECTION USING A VOLT METER, AND SUBSEQUENTLY DISCONNECT ALL ELECTRICAL WIRES FROM THEIR SOURCES INSIDE ELECTRICAL BOXES.

   C. DISCONNECT AND/OR REMOVE ALL CHECK VALVES TO ALLOW RESIDUAL DIESEL WITHIN THE PRODUCT LINES AND AST TO FLOW BACK TO THE UST. IF NEEDED, INTRODUCE COMPRESSED NITROGEN IN THE LINES AT THE HIGHEST POINT TO FORCE DIESEL BACK TO THE UT.

   D. REMOVE PAVEMENT OVERLYING THE UST AND PIPE CHASE AND STOCKPILE SEPARATELY FROM WASTE SOILS. IF PAVEMENT MUST BE REMOVED BEYOND THE LIMITS OF EXISTING EXPANSION JOINTS, THE PAVEMENT CONCRETE EDGES MUST BE SAW-CUT.

   E. REMOVE SOIL OVERLYING THE UST AND PIPE CHASE TO A DEPTH OF FOUR FEET BELOW GRADE, USING CARE NOT TO PUNCTURE THE UST OR BREAK EXISTING PRODUCT PIPING. ALL SOILS WITHIN FIVE FEET OF UNDERGROUND UTILITIES SHALL BE REMOVED BY HAND DIGGING. PLACE THE SOIL ON/COVER THE SOIL WITH PLASTIC SHEETING IN CASE THE SOILS ARE IMPACTED ABOVE ACTION LEVELS. CONSTRUCT AN EARTHEN BERM COVERED WITH PLASTIC AROUND THE PERIMETER OF THE STOCKPILED SOILS TO PREVENT RAINWATER RUN-ON OR RUNOFF.

   F. WHEN SOILS HAVE BEEN REMOVED FROM AROUND AND ATOP THE UST, ALL RISERS AND OTHER APPURTENANCES MUST BE REMOVED. THE TANK MUST REMAIN VENTED UNTIL IT IS PREPARED TO BE LIFTED FROM THE EXCAVATION. IF THE EXISTING VENTING SYSTEM CANNOT REMAIN IN PLACE, A TEMPORARY VENT RISER MAY BE INSTALLED AS LONG AS THE VENT EXTENDS AT LEAST 12 FEET ABOVE FINISHED GRADE, IS PLACED IN A LOCATION THAT WILL NOT ALLOW VAPORS TO ENTER THE BUILDING, AND IS PLACED IN A LOCATION AWAY FROM IGNITION SOURCES.

   G. REMOVE PRODUCT LINES FROM THE EXCAVATION USING HAND DIGGING METHODS ONLY. REMOVAL OF PIPING FROM THE EXCAVATION USING AN EXCAVATOR BUCKET IS PROHIBITED.

   H. CONTRACTOR SHALL PROVIDE A VACUUM TRUCK TO COLLECT ALL RESIDUAL FLUIDS AND SLUDGE FROM THE UST. THE INSIDE OF THE UST SHALL BE RINSED USING A SURFACTANT TO AID IN THE REMOVAL OF FUEL RESIDUES. PROPER WASTE MANIFESTING AND DISPOSAL PRACTICES SHALL BE USED FOR THE RESIDUAL FLUIDS.

   I. PURGE ALL FLAMMABLE VAPORS TO LEVELS BELOW THE EXPLOSION LIMIT AND MONITOR THE PROGESS USING AN OXYGEN/EXPLOSION METER. THE UST'S INTERNAL ATMOSPHERE MUST BE LESS THAN 10% OF THE LOWER EXPLOSIVE LIMIT PRIOR TO REMOVING THE TANK FROM THE EXCAVATION.

   J. AFTER ALL VAPORS ARE REMOVED, PLUG ALL HOLES. INSTALL ONE CAP WITH A 1/8-INCH DIAMETER VENT NEAR THE TOP OF THE TANK. ADD DRY ICE (CO2) TO THE UST IMMEDIATELY BEFORE CAPPING THE HOLES TO FURTHER INSURE A NON-EXPLOSIVE INTERNAL TANK ATMOSPHERE, AT A RATE OF 1.5 POUNDS OF DRY ICE PER 100 GALLONS OF TANK CAPACITY, WITH A MINIMUM OF 50 POUNDS OF DRY ICE REGARDLESS OF TANK SIZE.

   K. REMOVE THE TANK FROM THE GROUND AND LABEL IT (SPRAY-PAINT LETTERS ARE ACCEPTABLE) WITH THE FOLLOWING INFORMATION:

      -TANK HAS CONTAINED DIESEL FUEL

      -NOT VAPOR FREE

      -NOT SUITABLE FOR STORAGE OF POTABLE WATER OR FOOD USED FOR HUMAN OR ANIMAL CONSUMPTION

      -TANK REMOVED ON (DATE)

      -AT&T SHERWOOD: 2102 59TH STREET, GALVESTON, TX 77551

   L. TRANSPORT THE UST TO A CERTAIN TANK DESTRUCTION FACILITY AND OBTAIN A CERTIFICATE OF DESTRUCTION FOR PROPER DISPOSAL DOCUMENTATION WITHIN 14 DAYS OF THE UST REMOVAL. ALL TRANSPORTATION MUST BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. TRANSPORTATION MUST BE PERFORMED ON THE SAME DAY THAT THE UST IS REMOVED.

   M. SCREEN THE TANK HOLD SOILS FOR HYDROCARBONS USING A PHOTOIONIZATION DETECTOR (PID) AND NOTE ANY VISUAL AND/OR OLFACTORY INDICATION OF HYDROCARBON IMPACT. IF SOILS ARE NOTICEABLY IMPACTED HORIZONTALLY FROM THE UST, OR VERTICALLY BEYOND THE DEPTH OF THE CONCRETE BALLAST PAD BELOW THE TANK (IF ANY) THEN REMOVE THE BALLAST PAD TO EXCAVATE ADDITIONAL HYDROCARBON-IMPACTED SOILS. EXCAVATE (HORIZONTALLY AND VERTICALLY) AND STOCKPILE (ON PLASTIC SHEET) IMPACTED SOILS (IF ANY) UNTIL NATIVE SOILS HAVING RELATIVELY LESS HYDROCARBON IMPACT ARE ENCOUNTERED. THIS IS A RATHER SUBJECTIVE FIELD DETERMINATION AND IS LARGELY AN ISSUE OF THE AREA AROUND THE TANK THAT CAN BE REMOVED WITHOUT UNDERMINING THE STRUCTURAL INTEGRITY OF OTHER SITE FEATURES AND/OR COST OF SOIL DISPOSAL ASSOCIATED WITH EXCESSIVE EXCAVATION. EXCAVATION NEAR THE BUILDING (EVEN IF THE SOILS ARE NOTICED TO BE IMPACTED WITH HYDROCARBONS) MAY NOT BE POSSIBLE: CONSULT WITH THE AT&T CLIENT GROUP FOR SAFE EXCAVATION LIMITS RELATIVE TO BUILDING INTEGRITY. DEPENDING UPON THE DEPTH OF THE EXCAVATION NATURAL GROUNDWATER MAY BE ENCOUNTERED. FOLLOWING EXCAVATION TO THE MAXIMUM EXTENT ATTAINED, TAKE PHOTOGRAPHS OF THE TANK HOLD AND SITE CONDITIONS FOR DOCUMENTATION. IF AN OBVIOUS RELEASE HAS BEEN OBSERVED, THEN COMPLETE A PST PROGRAM INCIDENT REPORT FORM (TCEQ-20097) WITHIN 24 HOURS OF THE RELEASE DISCOVERY.

   N. AFTER THE UST HAS BEEN REMOVED, A UST REGISTRATION & SELF-CERTIFICATION FORM (TCEQ-0724) MUST BE SUBMITTED TO THE TCEQ WITHIN 30 DAYS.

6. SOIL SAMPLE COLLECTION

   A. COLLECT SOIL SAMPLES FROM THE TANK BOTTOM, SIDEWALLS, AND PIPE CHASE FOR DETERMINATION OF HYDROCARBON IMPACTS ABOVE ACTION LEVELS, SAMPLES OF THE EXCAVATED (STOCKPILED) MATERIAL SHOULD ALSO BE COLLECTED FOR DISPOSAL CHARACTERIZATION PURPOSES, AT A RATE OF ONE SAMPLE PER 50 CUBIC YARDS OF EXCAVATED MATERIAL. IF NO GROUNDWATER IS ENCOUNTERED, THE CONTRACTOR WILL BE REQUIRED TO COLLECT TWO (2) SOIL SAMPLES UNDER THE FORMER UST AT BOTH ENDS AND ONE (1) SOIL SAMPLE DIRECTLY UNDER THE FILL PORT LOCATION. IF THE UST IS UNDERLAIN BY A CONCRETE BALLAST SLAB, AND IF THE BALLAST SLAB IN NOT REMOVED, THE BOTTOM SOIL SAMPLES WILL BE TAKEN AT THE EDGE OF THE BALLAST SLAB AT BOTH ENDS OF THE UST. IF GROUNDWATER IS ENCOUNTERED IN THE TANK HOLD, THEN A VACUUM TRUCK WILL BE USED TO REMOVE THE WATER. IF THE GROUNDWATER RECHARGES, THEN NO BOTTOM SOIL SAMPLES ARE REQUIRED, BUT FOUR (4) SAMPLES FROM EACH EXCAVATION WALL (ASSUMING A SQUARE EXCAVATION) WILL BE REQUIRED AT A LOCATION IMMEDIATELY ABOVE THE SOIL/GROUNDWATER INTERFACE, AND ONE GROUNDWATER SAMPLE WILL BE REQUIRED. FOR THE PIPE CHASE, COLLECT ONE SOIL SAMPLE PER 20 LINEAR FEET OF TRENCH, AND COLLECT ONE SOIL SAMPLE AT EACH PIPE CHASE DIRECTION CHANGE (PIPE ELBOWS).

   B. SUBMIT SOIL AND WATER SAMPLES FOR ANALYSIS OF BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENE (BTEX) USING METHOD 8260B, AND TOTAL PETROLEUM HYDROCARBONS (TPH) USING METHOD TX1005. INFORM THE LABORATORY TO RETAIN THE TPH SAMPLE WITH THE HIGHEST CONCENTRATION, AND IF THE SAMPLE EXHIBITS A CARBON NUMBER GREATER THAN OR EQUAL TO C12, SUBMIT THE SAMPLE FOR ANALYSIS OF POLYCYCLIC AROMATIC HYDROCARBONS (PAHS) USING METHOD 8270.

7. BACKFILLING THE EXCAVATION

   A. THE EXCAVATION SHOULD BE BACKFILLED WITH THE SAME NATIVE SOIL REMOVED (IF NOT NOTICEABLY IMPACTED), OR CLEAN SOIL TO AVOID SAFETY AND STRUCTURAL INTEGRITY CAVE-IN ISSUES. SINCE THE EXCAVATION IS NEAR AN EXISTING BUILDING BACKFILLING AND COMPACTING THE CLEAN MATERIALS IN LIFTS IN RECOMMENDED.

8. REPORTING

   A. IF NON-AQUEOUS-PHASE LIQUID (NAPL) IS OBSERVED IN THE EXCAVATION, THE CONTRACTOR SHALL NOTIFY THE AT&T EH&S MANAGER IMMEDIATELY UPON NAPL DISCOVERY, SUCH THAT A NAPL RECOVERY PROGRAM CAN BE IMPLEMENTED.

   B. IF THE SOILS AND/OR INITIAL GROUNDWATER SAMPLE ARE DISCOVERED TO BE IMPACTED AT CONCENTRATIONS ABOVE ACTION LEVELS, THEN A RELEASE DETERMINATION REPORT FORM (TCEQ-0621) WILL REQUIRE COMPLETION AND SUBMITTAL TO THE TCEQ WITHIN 20 DAYS OF THE RELEASE DISCOVERY.

   C. A SUMMARY REPORT DOCUMENTING ALL ASPECTS OF THE UST REMOVAL, ALONG WITH TEXT, FIGURES, SITE DRAWINGS, PHOTOGRAPHS, ANALYTICAL DATA, CORRESPONDENCE, TCEQ REPORTS, REGISTRATIONS, PERMITS, WASTE MANIFESTS/DESTRUCTION DOCUMENTS, AND ALL OTHER PERTINENT INFORMATION SHALL BE PREPARED FOR AT&T'S EH&S MANAGER.

GRAPHIC SCALE

8 0 8 16 24 FT

SCALE: 1/8" = 1'

GENERAL NOTES:

1. SEE G2 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. DISPOSE OF ALL MATERIALS OFFSITE IN ACCORDANCE WITH LOCAL & STATE REGULATIONS.

//// INDICATES ITEMS TO BE ABANDONED OR DEMOLISHED AND REMOVED

DEMOLITION NOTES:

1. CONTRACTOR TO FIELD VERIFY LOCATION OF TANK FOR PIPING ROUTE PRIOR TO DEMO.
2. CONTRACTOR TO FIELD VERIFY LOCATION OF PROPOSED NEW AST PRIOR TO DEMO OF ASPHALT.

ALL SCALES ARE INDICATED FOR "E1" SIZE DRAWINGS.

at&t

CORPORATE REAL ESTATE

AT&T GALVESTON SHERWOOD

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9232644	
GEOLOC # WN5200	RUBEN MARTINEZ
	AT&T PROJECT MANAGER

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Seal/Signature

SHAW ENVIRONMENTAL & INFRASTRUCTURE
STATE OF TEXAS
KEVIN TAYLOR
79916
LICENSED
PROFESSIONAL ENGINEER
F-009545

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Project Name
AT&T GALVESTON SHERWOOD

Project Number
150498

CAD File Name
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Description
DEMO PLAN 1

Scale
AS-NOTED

F-1

IF SHEET IS LESS THAN (30X42) IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY

DEMO EXISTING UNDERGROUND FUEL TANK

A UST DEMO
F1 F2 SCALE - N.T.S.

DEMO EXISTING DUMPSTER PAD

B DAY TANK DEMO
F1 F2 SCALE - N.T.S.

DEMO EXISTING FUEL LINES

C FUEL PIPING DEMO
F1 F2 SCALE - N.T.S.

DEMO LINE AND PLUG

DEMO FUEL LINE

D DAY TANK DEMO
F1 F2 SCALE - N.T.S.

DEMO EXISTING PUMPS AND TANK APPURTENCES

E DAY TANK DEMO
F1 F2 SCALE - N.T.S.

GENERAL NOTES:

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at&t

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SHAW ENVIRONMENTAL & INFRASTRUCTURE
STATE OF TEXAS
KEVIN TAYLOR
79916
LICENSED
PROFESSIONAL ENGINEER
F-009545

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Project Name
AT&T GALVESTON SHERWOOD

Project Number
150498

CAD File Name
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Description
DEMO PLAN 2

Scale
NTS

ALL SCALES ARE INDICATED FOR "E1" SIZE DRAWINGS.

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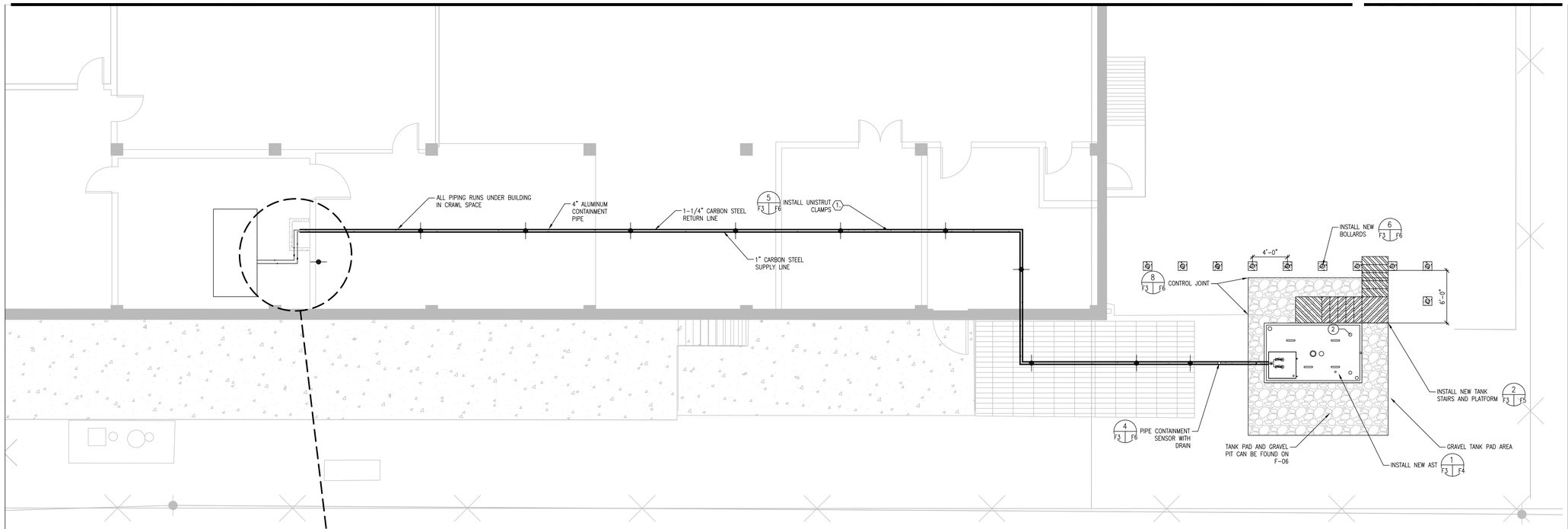
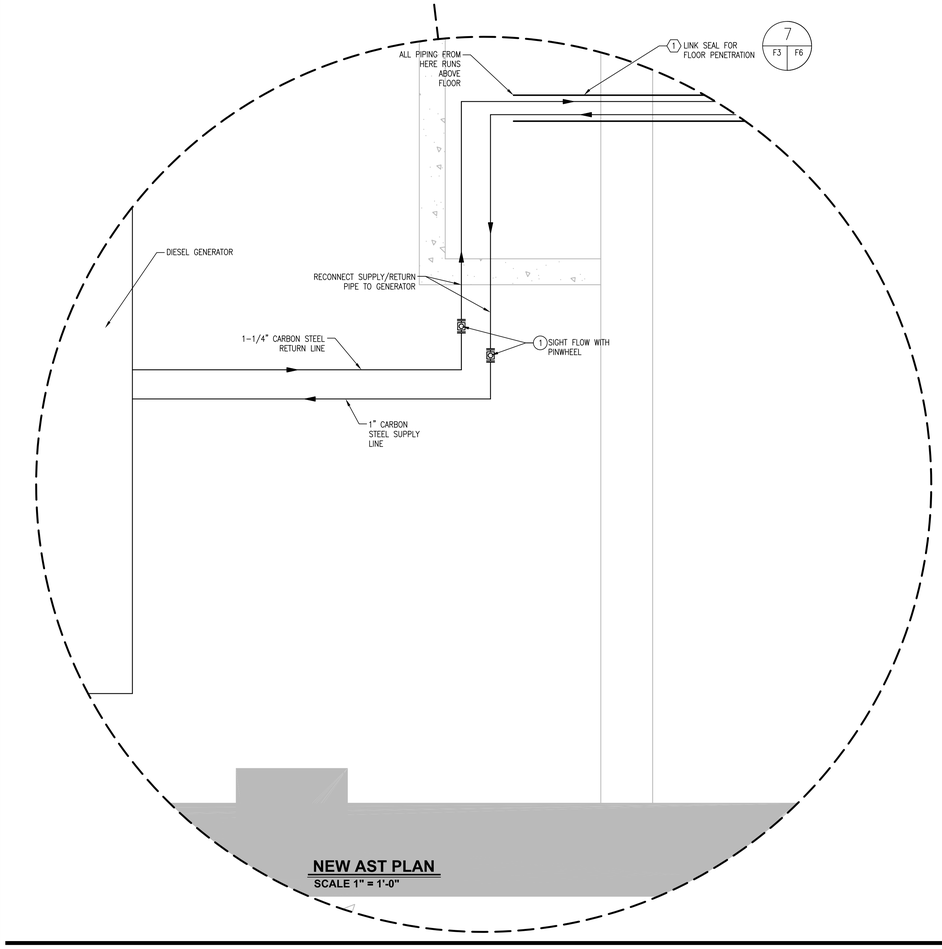
F-2



NEW AST PLAN
SCALE 3/16" = 1'-0"



NEW AST PLAN
SCALE 1" = 1'-0"

MATERIAL LIST

1. SIGHT FLOW WITH PINWHEEL.
2. 4" EMERGENCY VENT FOR PRIMARY TANK.

CONSTRUCTION NOTES:

1. BORE 8" HOLE THROUGH CONCRETE FLOOR, SEAL WITH LINK SEAL.
2. INSTALL PIPE SUPPORTS AS NECESSARY, MAX DISTANCE IS EVERY 12'.

GENERAL NOTES:

1. SEE G2 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. DISPOSE OF ALL MATERIALS OFFSITE IN ACCORDANCE WITH LOCAL & STATE REGULATIONS.

PIPE SUPPORTS

GRAPHIC SCALE

1 0 1 2 3 FT

SCALE: 1" = 1'

at&t

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Seal/Signature

SWANK ENVIRONMENTAL, INC. STATE OF TEXAS BRANDON W. HAGGARD 94743 LICENSED PROFESSIONAL ENGINEER F-005650

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Project Name
AT&T GALVESTON SHERWOOD

Project Number
150028

CAD File Name
K:\PROJECTS\150498_AT&T_GALVESTON SHERWOOD CO\CAD FILES\-WORKING

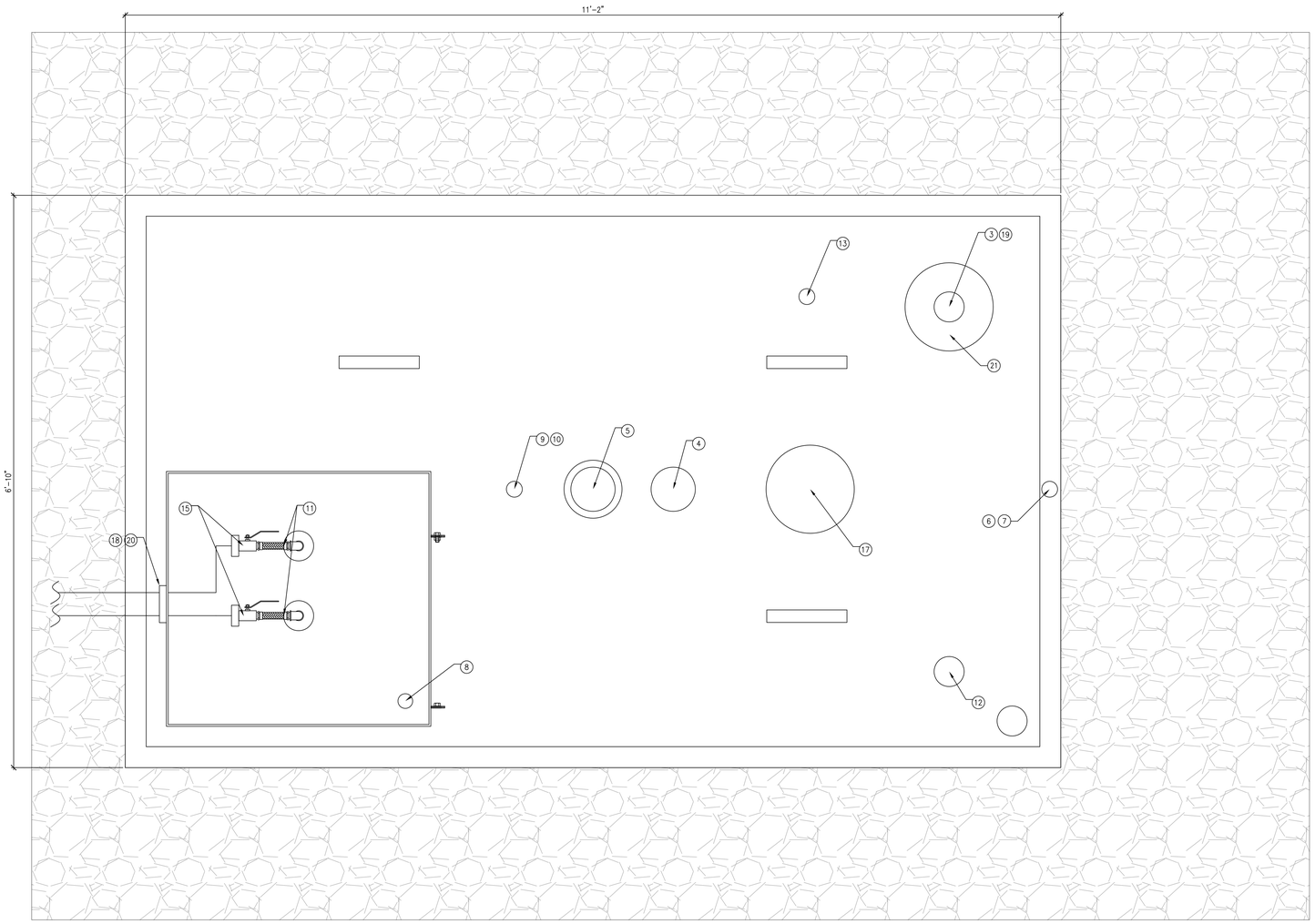
Description
AST PLAN 1

Scale
AS-NOTED

ALL SCALES ARE INDICATED FOR "F" SIZE DRAWINGS.

IF SHEET IS LESS THAN (30X42) IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY

F-3



1 AST PLAN
F3 F4
SCALE 1-1/2" = 1'-0"

MATERIAL LIST

1. 2,000 GALLON RECTANGULAR DOUBLE WALL STEEL UL-2085 FIRE RATED TANK. (11'-2"L X 6'-10"W X 4'-7"H) MODERN WELDING "FIREGUARD"
2. COATING SHALL BE AS FOLLOWS:
   A: PRIMER – IP86 ZINC (2-3 MILS OF DFT)
   B: INTERMEDIATE – IP66 EPOXY (3-4 MILS DFT)
   C: TOP – IF 168 POLYURETHANE (2-3 MILS DFT, WHITE)
3. 2" OVERFILL PREVENTION VALVE & DROP TUBE WITHIN 6" OF TANK BOTTOM. SET AT 95% TANK CAPACITY. OPW CH STOP-1000
4. 8" EMERGENCY VENT FOR PRIMARY TANK. MORRISON 244
5. 8" EMERGENCY VENT FOR SECONDARY TANK. MORRISON 244
6. 2" INTERSTITIAL RISER CAP & ADAPTOR KIT. VEEDER-ROOT
7. TANK ANNULAR SPACE SENSOR. VEEDER-ROOT
8. SUMP SENSOR. VEEDER-ROOT
9. MAG PLUS TLM PROBE WITH AST INSTALL KIT AND DIESEL FLOATS. VEEDER-ROOT
10. 4" PROBE RISER CAP & RING KIT. VEEDER-ROOT
11. FLEX CONNECTOR. FLEX-ING "FIRE-FLEX"
12. 2" PRESSURE / VACUUM VENT CAP MIN 12'-0" HIGH FROM GROUND LEVEL. MORRISON 749
13. CLOCK GAUGE. MARK FACE AT 85% TANK CAPACITY. MORRISON 818
14. NOT USED
15. BRASS BALL VALVE, LOCKABLE. OPW 218V (SIZE) LH
16. 3/4" CONDUIT PENETRATION. DIVERSIFIED PRODUCT
17. 36" MANWAY. MODERN WELDING
18. PIPE PENETRATION FITTING. DIVERSIFIED PRODUCT BS
19. 4" BRONZE FILL ADAPTOR & TOP, SEAL CAP. OPW 633T & 634TT
20. REDUCING BOOT WITH TEST PORT. DIVERSIFIED PRODUCTS RA
21. INTEGRATED LOCKABLE FILL/SPILL BUCKET

CONSTRUCTION NOTES:

1. ALL TANK HAZARD SIGNAGE SHALL BE IAW NFPA 704, CHAPTER 6. SIGNS SHALL BE INSTALLED ON ALL VISIBLE SIDES. CONTRACTOR RESPONSIBLE FOR PROVIDING & APPLYING SIGNAGE.

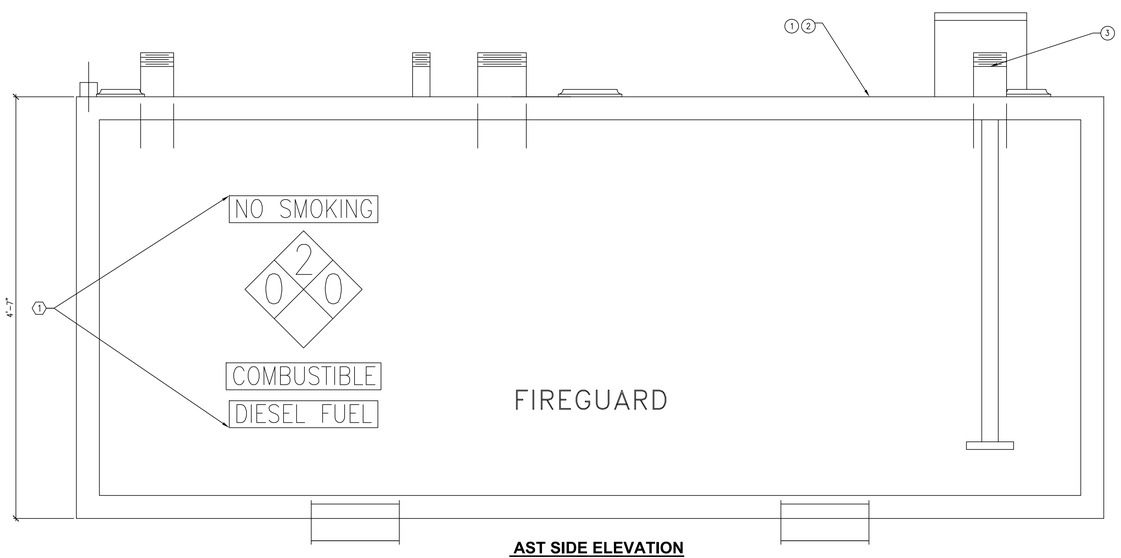
GENERAL NOTES:

1. SEE G2 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. DISPOSE OF ALL MATERIALS OFFSITE IN ACCORDANCE WITH LOCAL & STATE REGULATIONS.

GRAPHIC SCALE

1 0 1 2 3 FT

SCALE: 1-1/2" = 1'



AST SIDE ELEVATION
SCALE 1-1/2" = 1'-0"

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Suite 250
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Telephone 281.531.3100
Facsimile 281.531.3101

AT&T PROJECT NUMBER	AT&T AUTHORIZATION
9232644	
GEOLOC # WN5200	RUBEN MARTINEZ
	AT&T PROJECT MANAGER

△	Issue	Date & Issue Description	By	Check
1	09/16/13	ISSUED FOR REVIEW	S.H.	B.M.
2	10/30/13	ISSUED FOR REVIEW	S.H.	A.W.
3	12/10/13	ISSUED FOR BID	S.H.	A.W.
4	01/17/14	ISSUED FOR CONSTRUCTION	S.H.	K.T.
5	05/06/14	ISSUED FOR PERMIT, PRICING & CONSTRUCTION	S.H.	B.H.

Seal/Signature

SHAW ENVIRONMENTAL INC
STATE OF TEXAS
BRANDON W. HAGGARD
94743
LICENSED
PROFESSIONAL ENGINEER
F-005550

The seal appearing on this document was authorized by Brandon W. Haggard, P.E. 94743 on 05-06-2014

Project Name
AT&T GALVESTON SHERWOOD

Project Number
150498

CAD File Name
K:\PROJECTS\150498_AT&T_GALVESTON SHERWOOD CO\CAD FILES\-WORKING

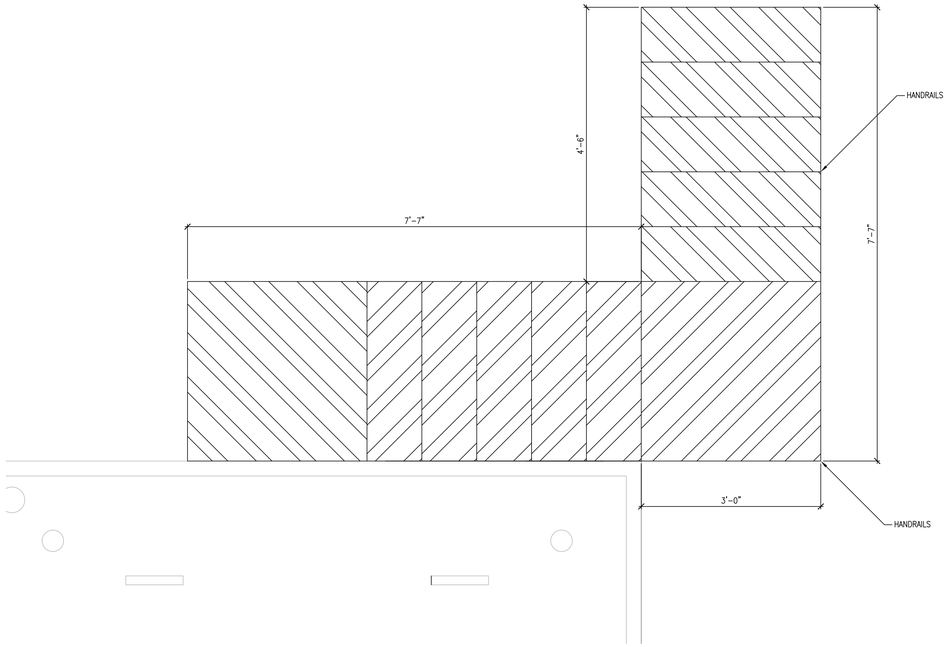
Description
AST PLAN 3

Scale
AS-NOTED

ALL SCALES ARE INDICATED FOR "L" SIZE DRAWINGS

F-4

IF SHEET IS LESS THAN (30X42) IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY



2 STAIR PLAN (F3 | F5)
SCALE 1-1/2" = 1'-0"

STAIR DETAIL
SCALE 1-1/2" = 1'-0"

STAIR SPECIFICATIONS:

1. THIS DRAWING REPRESENTS AN EXAMPLE OF FIELD FABRICATED STAIRS. ACTUAL STAIRS MAY BE DIFFERENT THAN PICTURED.
2. STAIR MANUFACTURER TO PROVIDE THE DESIGN LOADS REQUIREMENTS FOR HANDRAIL AND GUARDRAILS AS PER THE 2006 IBC AND TABLE 1607.1 AND SECTION 1607.7.1 & 1607.7.1.1. HANDRAIL AND GUARDRAILS ARE DESIGNED TO RESIST A LOAD OF 50 PLF APPLIED IN ANY DIRECTION AT TOP AND TO TRANSFER THIS LOAD THROUGH SUPPORTS TO THE STRUCTURE AND TO RESIST A SINGLE CONCENTRATED LOAD OF 200 LBS APPLIED IN ANY DIRECTION.
3. ALL HANDRAILS AND HANDRAIL EXTENSIONS SHALL BE AS REQUIRED PER SECTIONS 1012.5 AND 1012.2 OF THE 2006 IBC.
4. PROVIDE THE PLATFORM DESIGN LOADS AS REQUIRED PER TABLE 1607.1 OF THE 2006 IBC.
5. STAIR LANDINGS MUST HAVE THE MINIMUM DIMENSION MEASURED IN THE DIRECTION OF TRAVEL EQUAL TO THE WIDTH OF THE STAIRWAY AS REQUIRED PER SECTION 1009.4 OF THE 2006 IBC.
6. STAIR RISER HEIGHTS SHALL NOT BE LESS THAN 4 INCHES OR GREATER THAN 7 INCHES AS PER SECTION 1009.3. THE MINIMUM TREAD DEPTH IS 11 INCHES PER SECTION 1009.3 OF THE 2006 IBC.
7. THE DESIGNS, STRUCTURAL REQUIREMENTS AND DESIGN LOADS SHALL BE SEALED BY A P.E. LICENSED IN THE STATE OF TEXAS AND SHOWN AS SUCH ON THE PLANS.

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GEOLOC # WN5200	RUBEN MARTINEZ
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Seal/Signature

SHAW ENVIRONMENTAL, INC. STATE OF TEXAS BRANDON W. HAGGARD 94743 LICENSED PROFESSIONAL ENGINEER F-005650

The seal appearing on this document was authorized by Brandon W. Haggard, P.E. 94743 on 05-06-2014

Project Name
AT&T GALVESTON SHERWOOD

Project Number
150498

CAD File Name
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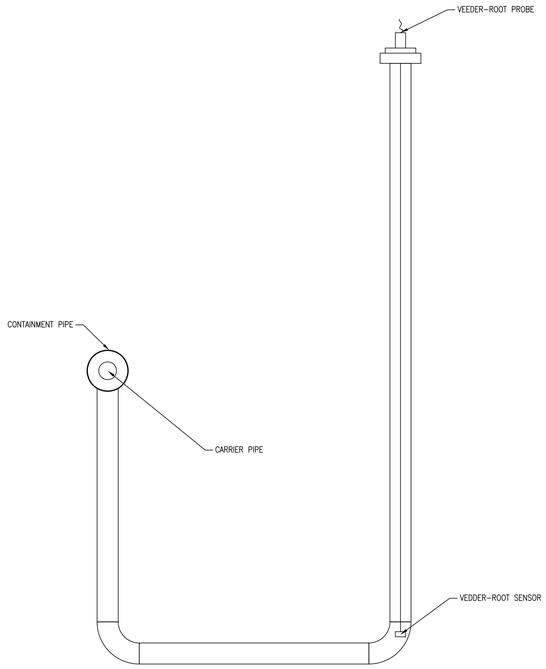
Description
STAIR PLAN

Scale
AS-NOTED

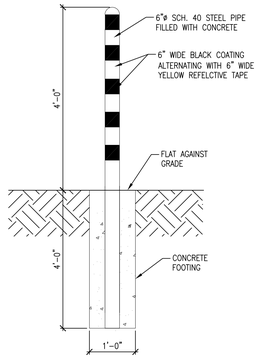
ALL SCALES ARE INDICATED FOR "E" SIZE DRAWINGS.

F-5

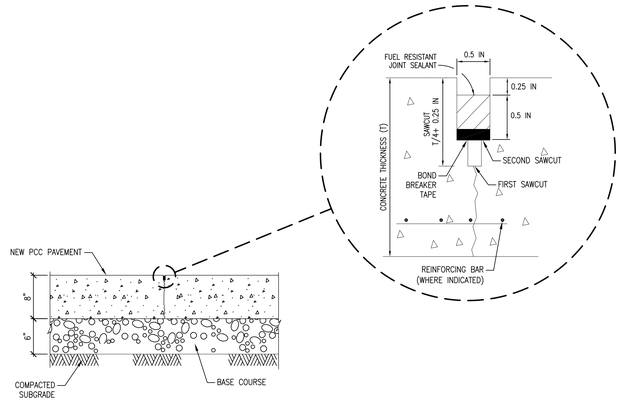
IF SHEET IS LESS THAN (30X42) IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY



4 PIPE LEAK DETECTION
F3 F6
SCALE - N.T.S.



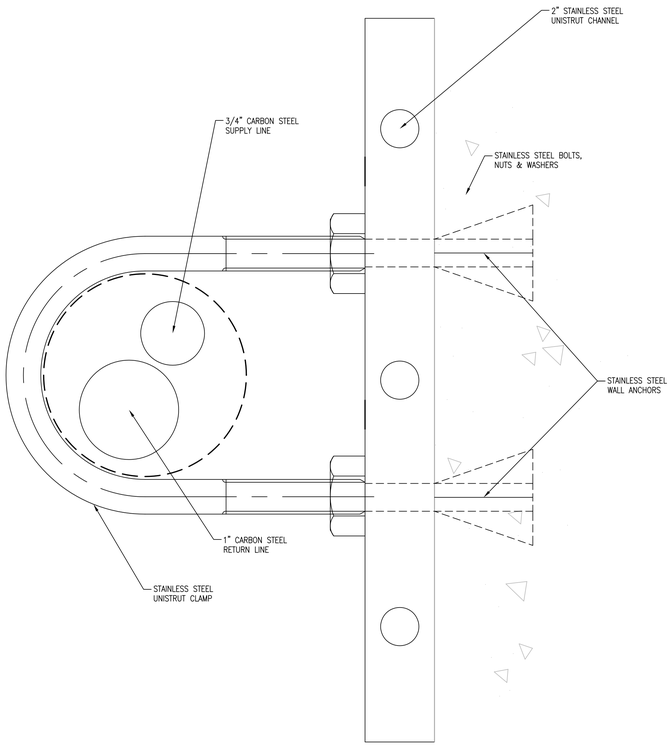
6 BOLLARD DETAIL
F3 F6
SCALE - N.T.S.



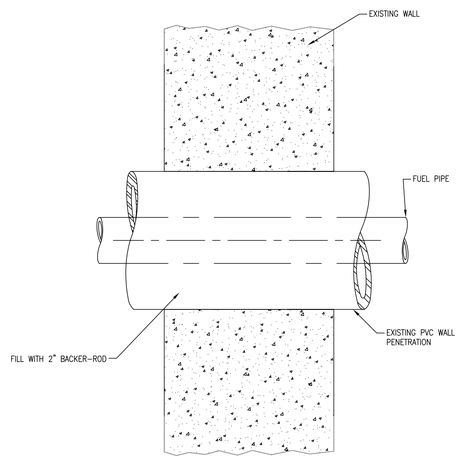
GENERAL NOTES:

1. TOP OF JOINT SEALANT WILL BE 1/4-INCH BELOW TOP OF PAVEMENT.
2. JOINT SEALANT SHALL BE NON-SHRINK FUEL RESISTANT, POURABLE OR PREFORMED TYPE.
3. PREFORMED SEALANT SHALL HAVE AN UNCOMPRESSED WIDTH OF NOT LESS THAN TWICE THE WIDTH OF THE JOINT SEALANT RESERVOIR.
4. NONABSORPTIVE MATERIAL REQUIRED TO PREVENT JOINT SEALANT FROM FLOWING INTO SAWCUT AND TO SEPARATE NONCOMPATABLE MATERIALS.

8 CONTROL JOINT DETAIL
F3 F6
SCALE - N.T.S.



5 UNISTRUT CLAMP DETAIL
F3 F6
SCALE - N.T.S.



7 PVC PENETRATION WITH BACKER-ROD DETAIL
F3 F6
SCALE - N.T.S.

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PROPRIETARY AT&T INFORMATION

NOT FOR GENERAL USE OR DISCLOSURE OUTSIDE OF AT&T
THIS INFORMATION MAY ONLY BE USED BY AUTHORIZED PERSONNEL OF THE LOCAL GOVERNMENT AGENCY IN CONNECTION WITH APPLICATION FOR PERMITS AND AUTHORIZATIONS FOR BUILDINGS, CONSTRUCTION, AND/OR ZONING CHANGES.

AT&T PROJECT NUMBER	AT&T AUTHORIZATION
9232644	
GEOLOC # WN5200	RUBEN MARTINEZ
	AT&T PROJECT MANAGER

△	Issue	Date & Issue Description	By	Check
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2	10/30/13	ISSUED FOR REVIEW	S.H.	A.W.
3	12/10/13	ISSUED FOR BID	S.H.	A.W.
4	*05/06/14*	ISSUED FOR CONSTRUCTION	S.H.	K.T.

Seal/Signature

SHAW ENVIRONMENTAL & INFRASTRUCTURE
STATE OF TEXAS
KEVIN TAYLOR
LICENSED
79916
PROFESSIONAL ENGINEER
F-009545

The seal appearing on this document was authorized by Kevin Taylor, P.E. 79916 on 01-17-14

Project Name
AT&T GALVESTON SHERWOOD

Project Number
150498

CAD File Name
K:\PROJECTS\150498_AT&T_GALVESTON SHERWOOD CO\CAD FILES\-WORKING

Description
DETAILS PAGE

Scale
NTS

F-06

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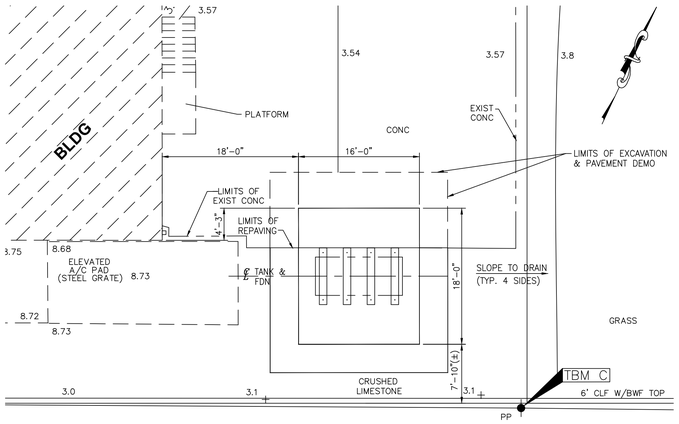
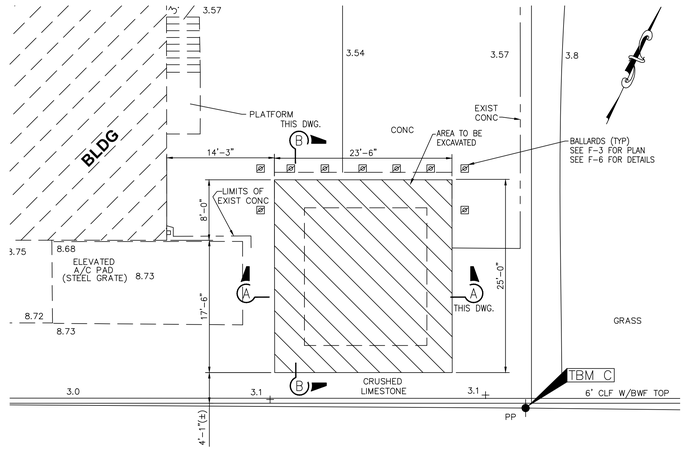


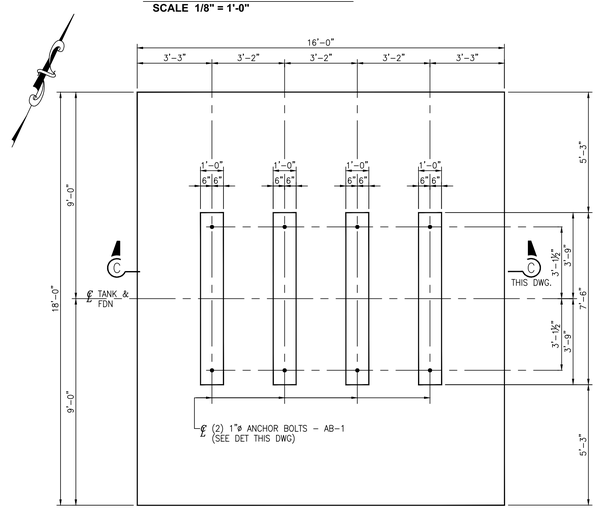
FUEL TANK PAD LAYOUT

SCALE 1/8" = 1'-0"



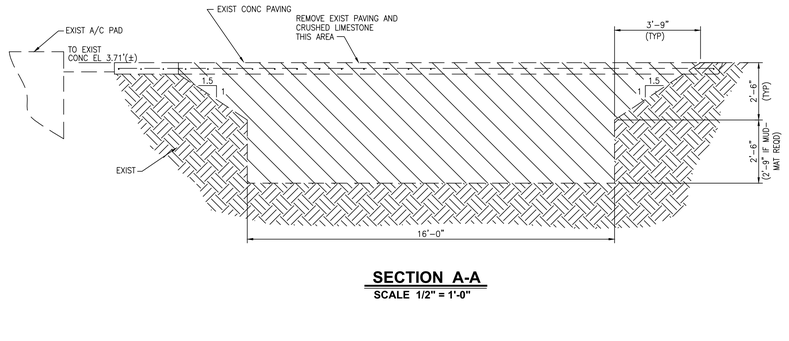
EXCAVATION LIMITS FOR FUEL TANK PAD LAYOUT

SCALE 1/8" = 1'-0"



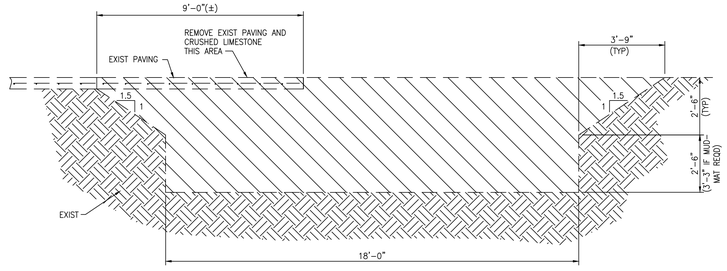
FUEL TANK PAD PLAN DIMENSIONS

SCALE 3/8" = 1'-0"



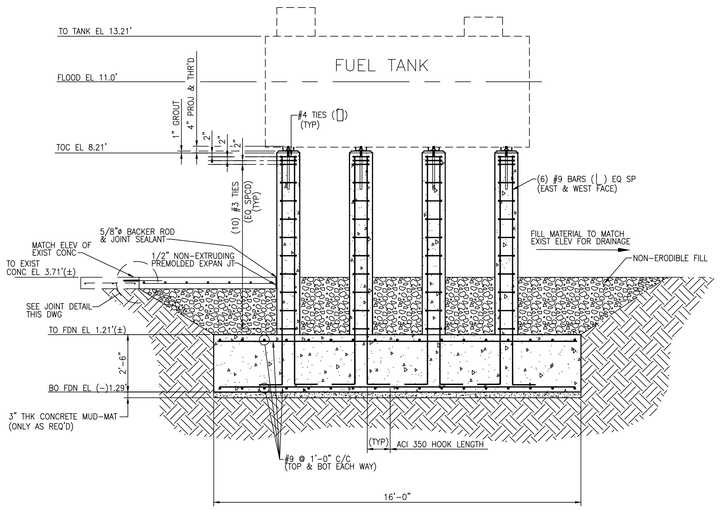
SECTION A-A

SCALE 1/2" = 1'-0"



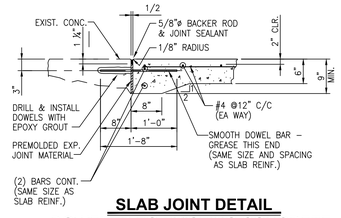
SECTION B-B

SCALE 1/2" = 1'-0"



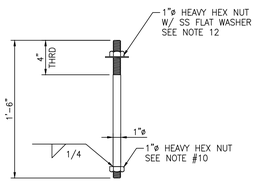
SECTION C-C

SCALE 3/8" = 1'-0"



SLAB JOINT DETAIL DOWELED TO EXISTING CONCRETE

SCALE NTS



ANCHOR BOLT - AB-1

SCALE NTS
(8) REQ'D

CONCRETE NOTES & SPECIFICATIONS

1. DESIGN, FABRICATION AND ERECTION OF WORK SHOWN ON THESE DRAWINGS SHALL BE IN ACCORDANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), LATEST ADDITION.
2. MINIMUM CONCRETE COVER PROVIDED FOR REINFORCEMENT SHALL BE 3" FOR CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH AND 2" FOR ALL OTHER CASES.
3. ADMIXTURE
   A. ALL PAVEMENT AND CURBS – USE WATER REDUCING AND RETARDING ADMIXTURE (2 HOUR RETARDATION).
   B. OTHER CONCRETE – USE OF ADMIXTURE AT CONTRACTOR'S OPTION, BUT SUBJECT TO ENGINEER'S APPROVAL.
4. ALL CONCRETE TO ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS AND REBAR IS TO BE GRADE 60 ksi.
5. REINFORCED CONCRETE SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI–318), LATEST EDITION.
6. CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING AS UNCHARTED OBSTRUCTIONS MAY BE ENCOUNTERED. IF UNCHARTED OBSTRUCTIONS ARE DISCOVERED, CONTACT ENGINEER FOR DIRECTION.
7. A MINIMUM OF 1" NON–SHRINK GROUT SHALL BE USED FOR TANK SUPPORT BASE AS SHOWN ON DRAWINGS.
8. IF REINFORCEMENT CAUSES INTERFERENCE WITH ANCHOR BOLTS, ADJUST THE REINFORCING, NOT THE ANCHOR BOLTS.
9. ANCHOR BOLT AND THREADED ROD SHALL BE ASTM A193, GRADE B8. NUTS SHALL BE HEAVY HEX CONFORMING TO ASTM A194, GRADE 8F AND STAINLESS STEEL WASHERS.
10. SPLICES: – LENGTHS SHALL BE 32 BAR DIAMETERS OR 2'–0", WHICHEVER IS GREATER, UNLESS OTHERWISE SHOWN.
11. BAR BENDS, HOOKS AND OFFSETS SHALL BE IN ACCORDANCE WITH THE ACI 350 RECOMMENDATIONS.
12. FIELD TO VERIFY ANCHOR BOLT SIZES AND LOCATIONS.

DEMOLITION NOTES:

1. SAW CUT EXIST. PAVING AS REQUIRED TO INSTALL NEW PAVING AND FOUNDATIONS.
2. EXCAVATED SPOIL TRANSPORTATION OFFSITE IS BY CONTRACTOR.

EXCAVATION, FILL & BACKFILL:

1. FILL MATERIAL SHALL BE NON–ERODIBLE, FREE FROM ROOTS AND OTHER ORGANIC MATTER, TRASH, DEBRIS AND STONES LARGER THAN 3" IN ANY DIRECTION. NEW OR EXISTING FILL BELOW FOUNDATIONS TO 95% DENSITY (MOD. PROCTOR).
2. TOP 2 FEET OF EXCAVATION TO BE DONE CAREFULLY TO LOCATE ANY UNDERGROUND CABLES & ELECTRICAL EQUIPMENT. ANY ITEMS LOCATED REQUIRING DISCONNECTING OR REMOVAL SHALL HAVE AT&T APPROVAL BEFORE PROCEEDING.
3. THE FILL MATERIAL SHALL CONSIST OF LOW PLASTICITY SANDY CLAYS WITH PLASTICITY INDICES RANGING BETWEEN 12 AND 20, OR COMPACTED GRANULAR FILL USED AT THE NEW FOUNDATIONS AND BENEATH PAVED AREAS.
4. OVER EXCAVATED AREAS (6" CONCRETE PAVING DEMO.) BETWEEN EXISTING PAVING AND NEW CONCRETE CONSTRUCTION TO BE REPLACED IN–KIND WITH CONCRETE PAVING.

LOADS / DESCRIPTION:

THIS STRUCTURE IS DESIGNED UTILIZING THE LOADS INDICATED AMD APPLIED AS REQUIRED BY: 2009 INTERNATIONAL BUILDING CODE, ASCE 7–10 AND ASCE 24.

SITE COORDINATES: 29.2788°N, 94.8297° W

OCCUPANCY CATAGORY: IV

SITE SOIL CLASSIFICATION CATAGORY: OSHA SITE CLASS C – "SILTY SANDY CLAYS/SILTY SANDS"

SEISMIC LOADS:

S_s:	0.082g	S_{MS}:	0.131g	S_{DS}:	0.087g
S_1:	0.035g	S_{M1}:	0.083g	S_{d1}:	0.055g

IBC–2009 WIND SPEEDS (3–SEC PEAK GUST): 130 MPH

BENCHMARK:
TBM C: RAILROAD SPIKE IN POWER POLE ON THE NORTH SIDE OF THE 20' ALLEY. (AS SHOWN HEREON)
ELEVATION=4.69'

LEGAL DESCRIPTION:

0.7576 ACRE (33,000 SQ. FT.),
BEING ALL OF LOTS 1–11, BLOCK 2,
W. B. KINKEAD'S ADDITION TO THE CITY OF GALVESTON
(VOL. 140, PG. 19–20; G.C.M.R.)
CITY OF GALVESTON, GALVESTON COUNTY, TEXAS

8 4 0 4 8 16 24 32
SCALE: 1/8" = 1'–0"

2 1 0 1 2 4 6 8
SCALE: 1/2" = 1'–0"

ALL SCALES ARE INDICATED FOR "1" SIZE DRAWINGS.

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AT&T PROJECT NUMBER 9232644	AT&T AUTHORIZATION
GEOLOC # WN5200	RUBEN MARTINEZ AT&T PROJECT MANAGER

	Issue	Date & Issue Description	By	Check
A	10/18/13	ISSUED FOR REVIEW & COMMENT	G.L.H.	L.B./L.K.
B	12/05/13	ISSUED FOR BID	G.L.H.	L.B./L.K.
0	*05/06/14*	ISSUED FOR CONSTRUCTION	G.L.H.	L.B./L.K.

Seal/Signature

STATE OF TEXAS
LEWIS BURRUSS
92695
REGISTERED
PROFESSIONAL ENGINEER

I am employed by CB&I, Inc.
Texas registration No. 10296
The seal appearing on this document was authorized by LEWIS BURRUSS, P.E. 56295 on 01–02–2014

Project Name
AT&T GALVESTON SHERWOOD

Project Number
150498

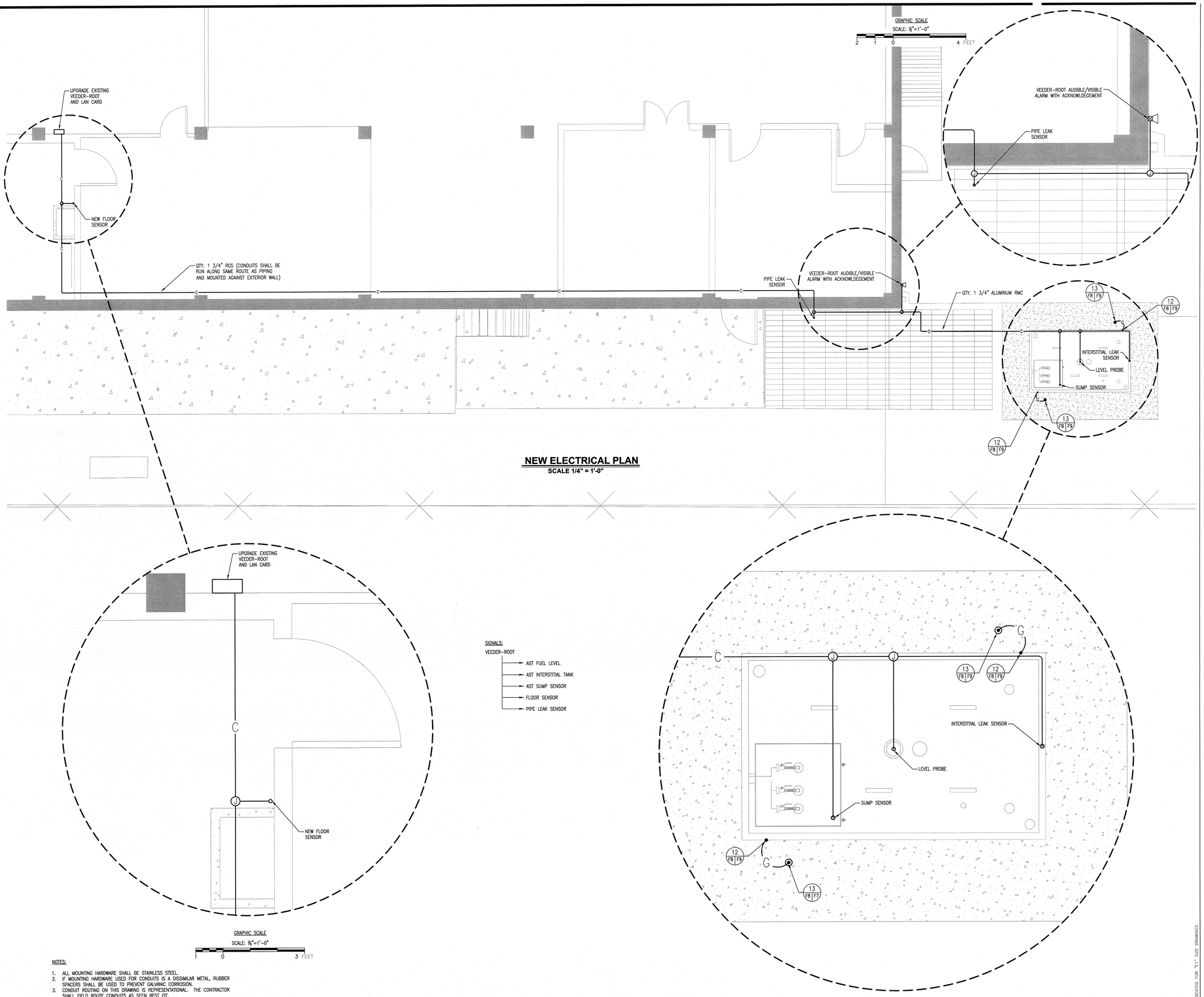
CAD File Name

Description
FUEL TANK PAD - PLAN, SECTIONS & DETAILS

Scale
AS–NOTED

IF SHEET IS LESS THAN (30X42) IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY

F-7



NEW ELECTRICAL PLAN
SCALE 1/4" = 1'-0"

SIGNALS:
VEEDER-ROOT
- AST FUEL LEVEL
- AST INTERSTITIAL TANK
- AST SUMP SENSOR
- FLOOR SENSOR
- PIPE LEAK SENSOR

GRAPHIC SCALE
SCALE: ¾"=1'-0"
1 0 3 FEET

NOTES:

1. ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL.
2. IF MOUNTING HARDWARE USED FOR CONDUITS IS A DISSIMILAR METAL, RUBBER SPACERS SHALL BE USED TO PREVENT GALVANIC CORROSION.
3. CONDUIT ROUTING ON THIS DRAWING IS REPRESENTATIONAL. THE CONTRACTOR SHALL FIELD ROUTE CONDUITS AS SEEN BEST FIT.
4. MINIMUM CONDUIT SIZE SHALL BE 3/4" IF NOT OTHERWISE NOTED ON THIS DRAWING OR THE PANEL SCHEDULE ON DRAWING E-8.
5. MINIMUM WIRE SIZE FOR POWER CIRCUITS SHALL BE #12 AWG. MINIMUM WIRE SIZE FOR CONTROL CIRCUITS SHALL BE #14 AWG.
6. THE EMERGENCY STOP ON THE DIESEL GENERATOR SHALL CEASE FUNCTION OF GENERATOR, CLOSE THE FUEL SUPPLY VALVE, AND DISABLE THE FUEL SUPPLY PUMP.

at&t

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GEOLOC # WN5200	RUBEN MARTINEZ
	AT&T PROJECT MANAGER

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4	05/06/14 ISSUED FOR CONSTRUCTION	T.M.B.	D.M.L.

Seal/Signature

SHAW ENVIRONMENTAL & INFRASTRUCTURE, INC. STATE OF TEXAS DENNIS M. LASHUA 96017 LICENSED PROFESSIONAL ENGINEER 5/5/2014 F-009545

Project Name
AT&T GALVESTON SHERWOOD

Project Number
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CAD File Name
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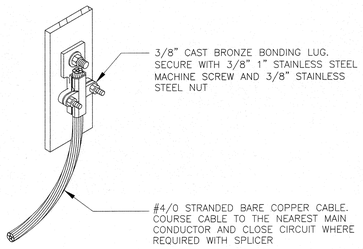
Description
ELECTRICAL PLAN

Scale
AS-NOTED

ALL SCALES ARE INDICATED FOR 11" X 17" SIZE DRAWINGS.

IF SHEET IS LESS THAN (30X42) IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY

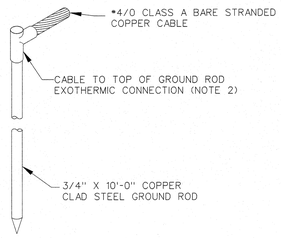
F-08



12 F7 F9 **METAL EQUIPMENT BONDING DETAIL**
SCALE - N.T.S.

DRAWING SYMBOL ●

TOP OF RODS TO BE 12" MINIMUM BELOW FINISHED GRADE.



13 F7 F9 **TYPICAL GROUNDING ROD**
SCALE - N.T.S.

DRAWING SYMBOL ◉

GROUNDING NOTES:

1. GROUNDING SYSTEM TO COMPLY WITH THE 2011 NATIONAL ELECTRICAL CODE, THE 2011 CITY OF HOUSTON ELECTRICAL CODE, NFPA 780, AND ALL OTHER APPLICABLE STATE, LOCAL AND SITE REQUIREMENTS.
2. ALL COMPONENTS SHALL BE LISTED FOR THEIR INTENDED USE AND INSTALLED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS.
3. ALL BELOW GRADE OR EMBEDDED GROUNDING CONNECTIONS SHALL BE "EXOTHERMIC WELDING PROCESS".
4. ALL EXPOSED GROUND CONNECTIONS SHALL BE EXOTHERMIC OR APPROVED MECHANICAL TYPE.
5. SURFACES WHERE GROUNDING CONNECTIONS ARE TO BE MADE SHALL BE CLEAN AND DRY:
   A. STEEL SURFACES SHALL BE GROUND OR FILED TO BRIGHT METAL, REMOVING ALL SCALE, RUST, GREASE AND DIRT.
   B. COPPER AND GALVANIZED STEEL SHALL BE CLEANED WITH EMERY CLOTH TO REMOVE OXIDES BEFORE MAKING CONNECTIONS.

ALL SCALES ARE INDICATED FOR "E1" SIZE DRAWINGS

at&t

CORPORATE REAL ESTATE

AT&T GALVESTON SHERWOOD

2102 59TH ST.
GALVESTON, TX 77551

Gensler
711 Louisiana Street
Suite 300
Houston TX 77002
Telephone 713.844.0000
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PROPRIETARY AT&T INFORMATION

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THIS INFORMATION MAY ONLY BE USED BY AUTHORIZED PERSONNEL OF THE LOCAL GOVERNMENT AGENCY IN CONNECTION WITH APPLICATION FOR PERMITS AND AUTHORIZATIONS FOR BUILDINGS, CONSTRUCTION, AND/OR ZONING CHANGES.

AT&T PROJECT NUMBER	AT&T AUTHORIZATION
9232644	
GEOLOC # WN5200	RUBEN MARTINEZ
	AT&T PROJECT MANAGER

△ Issue	Date & Issue Description	By	Check
1	9/16/13 ISSUED FOR REVIEW	S.H.	B.M.
2	10/25/13 ISSUED FOR REVIEW	T.M.B.	D.M.L.
3	12/10/13 ISSUED FOR BID	T.M.B.	D.M.L.
4	*05/06/14* ISSUED FOR CONSTRUCTION	T.M.B.	D.M.L.

Seal/Signature

SHAW ENVIRONMENTAL & INFRASTRUCTURE
STATE OF TEXAS
DENNIS M. LASHLEY
96011
LICENSED
PROFESSIONAL ENGINEER
F-009545 5/5/2014

Project Name
AT&T GALVESTON SHERWOOD

Project Number
150498

CAD File Name
K:\PROJECTS\150498_AT&T_GALVESTON SHERWOOD CO\CAD FILES\-WORKING

Description
ELECTRICAL DETAILS

Scale
AS-NOTED

F-09

IF SHEET IS LESS THAN (30X42) IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY

Texas
Engineering
And
Mapping Co.

August 11, 2014

Gensler
Attn: Tim Mose

711 Louisiana Street
Suite 300
Houston Texas 77002

Re: AT&T Above Ground Fuel Storage Tank – 2102 59th Street, Galveston, TX 77551

Mr. Mose,

The purpose of this letter is to certify elevations for the proposed improvements of the Fuel Tank. The Base Flood Elevation (BFE) for this site per FEMA panel number 485469-0024-E, dated December 6, 2002, is 11.0'. A topographic survey was performed by me on August 29, 2013 using NGS Marker No. AC6265, designated "T 1516". The existing elevations in the area of work range from 3.1'-3.8'. The Fuel Tank will be raised above ground on reinforced concrete supports set in an underground concrete pad. Per construction plans issued May 6, 2014, the top of the concrete pad is proposed to be 1.21' and the top of the concrete supports for said Fuel Tank is proposed to be 8.21'. The lowest critical point on the fuel tank (top of tank) is proposed to be 13.21'. All of the above mentioned design elevations are based on NGS Marker No. AC6265 (NAVD 1988).

Brian Nesvadba, R.P.L.S.

State of Texas No. 5776

SECTION 603
FUEL-FIRED APPLIANCES

603.1 Installation. The installation of nonportable fuel gas appliances and systems shall comply the *International Fuel Gas Code.* The installation of all other fuel-fired appliances, other than internal combustion engines, oil lamps and portable devices such as blow torches, melting pots and weed burners, shall comply with this section and the *International Mechanical Code.*

603.1.1 Manufacturer's instructions. The installation shall be made in accordance with the manufacturer's instructions and applicable federal, state and local rules and regulations. Where it becomes necessary to change, modify or alter a manufacturer's instructions in any way, written approval shall first be obtained from the manufacturer.

603.1.2 Approval. The design, construction and installation of fuel-fired appliances shall be in accordance with the *International Fuel Gas Code* and the *International Mechanical Code.*

603.1.3 Electrical wiring and equipment. Electrical wiring and equipment used in connection with oil-burning equipment shall be installed and maintained in accordance with Section 605 and NFPA 70.

603.1.4 Fuel oil. The grade of fuel oil used in a burner shall be that for which the burner is *approved* and as stipulated by the burner manufacturer. Oil containing gasoline shall not be used. Waste crankcase oil shall be an acceptable fuel in Group F, M and S occupancies, when utilized in equipment *listed* for use with waste oil and when such equipment is installed in accordance with the manufacturer's instructions and the terms of its listing.

603.1.5 Access. The installation shall be readily accessible for cleaning hot surfaces; removing burners; replacing motors, controls, air filters, chimney connectors, draft regulators and other working parts; and for adjusting, cleaning and lubricating parts.

603.1.6 Testing, diagrams and instructions. After installation of the oil-burning equipment, operation and combustion performance tests shall be conducted to determine that the burner is in proper operating condition and that all accessory equipment, controls, and safety devices function properly.

603.1.6.1 Diagrams. Contractors installing industrial oil-burning systems shall furnish not less than two copies of diagrams showing the main oil lines and controlling valves, one copy of which shall be posted at the oil-burning equipment and another at an *approved* location that will be accessible in case of emergency.

603.1.6.2 Instructions. After completing the installation, the installer shall instruct the *owner* or operator in the proper operation of the equipment. The installer shall also furnish the *owner* or operator with the name and telephone number of *persons* to contact for technical information or assistance and routine or emergency services.

603.1.7 Clearances. Working clearances between oil-fired appliances and electrical panelboards and equipment shall be in accordance with NFPA 70. Clearances between oil-fired equipment and oil supply tanks shall be in accordance with NFPA 31.

[B, M, FG] 603.2 Chimneys. Masonry chimneys shall be constructed in accordance with the *International Building Code.* Factory-built chimneys shall be installed in accordance with the *International Mechanical Code.* Metal chimneys shall be constructed and installed in accordance with NFPA 211.

603.3 Fuel oil storage systems. Fuel oil storage systems shall be installed in accordance with this code. Fuel oil piping systems shall be installed in accordance with the *International Mechanical Code*.

603.3.1 Fuel oil storage in outside, above-ground tanks. Where connected to a fuel-oil piping system, the maximum amount of fuel oil storage allowed outside above ground without additional protection shall be 660 gallons (2498 L). The storage of fuel oil above ground in quantities exceeding 660 gallons (2498 L) shall comply with NFPA 31.

603.3.2 Fuel oil storage inside buildings. Fuel oil storage inside buildings shall comply with Sections 603.3.2.1 through 603.3.2.5 or Chapter 34.

603.3.2.1 Quantity limits. One or more fuel oil storage tanks containing Class II or III *combustible liquid* shall be permitted in a building. The aggregate capacity of all such tanks shall not exceed 660 gallons (2498 L).

Exception: The aggregate capacity limit shall be permitted to be increased to 3,000 gallons (11 356 L) of Class II or III liquid for storage in protected above-ground tanks complying with Section 3404.2.9.6, when all of the following conditions are met

1. The entire 3,000 gallon (11 356 L) quantity shall be stored in protected above-ground tanks;
2. The 3,000 gallon (11 356 L) capacity shall be permitted to be stored in a single tank or multiple smaller tanks; and
3. The tanks shall be located in a room protected by an *automatic sprinkler system* complying with Section 903.3.1.1.

603.3.2.2 Restricted use and connection. Tanks installed in accordance with Section 603.3.2 shall be used only to supply fuel oil to fuel-burning or generator equipment installed in accordance with Section 603.3.2.4. Connections between tanks and equipment supplied by such tanks shall be made using closed piping systems.

603.3.2.3 Applicability of maximum allowable quantity and control area requirements. The quantity of *combustible liquid* stored in tanks complying with Section 603.3.2 shall not be counted towards the maximum allowable quantity set forth in Table 2703.1.1(1), and such tanks shall not be required to be located in a *control area.*

metal floating roof meeting the requirements of API Standard 650

(3) A fixed metal roof with ventilation at the top and roof eaves constructed in accordance with API Standard 650 and containing a metal floating cover supported by liquidtight metal floating devices that provide buoyancy to prevent the liquid surface from being exposed when half of the flotation is lost

22.2.2.1 For the purposes of this chapter, an aboveground storage tank with an internal metal floating pan, roof, or cover that does not meet 22.2.2 or one that uses plastic foam (except for seals) for flotation, even if encapsulated in metal or fiberglass, shall meet the requirements for a fixed roof tank.

22.2.3 Protected Aboveground Tank. An atmospheric aboveground storage tank with integral secondary containment and thermal insulation that has been evaluated for resistance to physical damage and for limiting the heat transferred to the primary tank when exposed to a hydrocarbon pool fire and is listed in accordance with ANSI/UL 2085, *Standard for Protected Aboveground Tanks for Flammable and Combustible Liquids*, or an equivalent test procedure.

22.3 General Requirements. Storage of Class II and Class III liquids heated at or above their flash point shall follow the requirements for Class I liquids, unless an engineering evaluation conducted in accordance with Chapter 6 justifies following the requirements for some other liquid class.

*** Location of Aboveground Storage Tanks.**

22.4.1 Location with Respect to Property Lines, Public Ways, and Important Buildings.

22.4.1.1 Tanks storing Class I, Class II, or Class IIIA stable liquids whose internal pressure is not permitted to exceed a gauge pressure of 2.5 psi (17 kPa) shall be located in accordance with Table 22.4.1.1(a) and Table 22.4.1.1(b). Where tank spacing is based on a weak roof-to-shell seam design, the user shall present evidence certifying such construction to the authority having jurisdiction upon request.

22.4.1.2 Vertical tanks with weak roof-to-shell seams *(see 22.7.2)* that store Class IIIA liquids shall be permitted to be located at one-half the distances specified in Table 22.4.1.1(a), provided the tanks are not within the same diked area as, or within the drainage path of, a tank storing a Class I or Class II liquid.

22.4.1.3 Tanks storing Class I, Class II, or Class IIIA stable liquids and operating at pressures that exceed a gauge pressure of 2.5 psi (17 kPa), or are equipped with emergency venting that will permit pressures to exceed a gauge pressure of 2.5 psi (17 kPa), shall be located in accordance with Table 22.4.1.3 and Table 22.4.1.1(b).

22.4.1.4 Tanks storing liquids with boil-over characteristics shall be located in accordance with Table 22.4.1.4. Liquids with boil-over characteristics shall not be stored in fixed roof tanks larger than 150 ft (45 m) in diameter, unless an approved inerting system is provided on the tank.

22.4

Table 22.4.1.1(a) Location of Aboveground Storage Tanks Storing Stable Liquids — Internal Pressure Not to Exceed a Gauge Pressure of 2.5 psi (17 kPa)

		Minimum Distance (ft)	
Type of Tank	**Protection**	**From Property Line That Is or Can Be Built Upon, Including the Opposite Side of a Public Way[a]**	**From Nearest Side of Any Public Way or from Nearest Important Building on the Same Property[a]**
Floating roof	Protection for exposures[b]	½ × diameter of tank	⅙ × diameter of tank
	None	Diameter of tank but need not exceed 175 ft	⅙ × diameter of tank
Vertical with weak roof-to-shell seam	Approved foam or inerting system[c] on tanks not exceeding 150 ft in diameter[d]	½ × diameter of tank	⅙ × diameter of tank
	Protection for exposures[b]	Diameter of tank	⅓ × diameter of tank
	None	2 × diameter of tank but need not exceed 350 ft	⅓ × diameter of tank
Horizontal and vertical tanks with emergency relief venting to limit pressures to 2.5 psi (gauge pressure of 17 kPa)	Approved inerting system[b] on the tank or approved foam system on vertical tanks	½ × value in Table 22.4.1.1(b)	½ × value in Table 22.4.1.1(b)
	Protection for exposures[b]	Value in Table 22.4.1.1(b)	Value in Table 22.4.1.1(b)
	None	2 × value in Table 22.4.1.1(b)	Value in Table 22.4.1.1(b)
Protected aboveground tank	None	½ × value in Table 22.4.1.1(b)	½ × value in Table 22.4.1.1(b)

For SI units, 1 ft = 0.3 m.
[a]The minimum distance cannot be less than 5 ft (1.5 m).
[b]See definition 3.3.46, Protection for Exposures.
[c]See NFPA 69, *Standard on Explosion Prevention Systems*.
[d]For tanks over 150 ft (45 m) in diameter, use "Protection for Exposures" or "None," as applicable.

Table 22.4.1.1(b) Reference Table for Use with Tables 22.4.1.1(a), 22.4.1.3, and 22.4.1.5

	Minimum Distance (ft)	
Tank Capacity (gal)	From Property Line that Is or Can Be Built Upon, Including the Opposite Side of a Public Way	From Nearest Side of Any Public Way or from Nearest Important Building on the Same Property
275 or less	5	5
276 to 750	10	5
751 to 12,000	15	5
12,001 to 30,000	20	5
30,001 to 50,000	30	10
50,001 to 100,000	50	15
100,001 to 500,000	80	25
500,001 to 1,000,000	100	35
1,000,001 to 2,000,000	135	45
2,000,001 to 3,000,000	165	55
3,000,001 or more	175	60

For SI units, 1 ft = 0.3 m; 1 gal = 3.8 L.

Table 22.4.1.3 Location of Aboveground Storage Tanks Storing Stable Liquids — Internal Pressure Permitted to Exceed a Gauge Pressure of 2.5 psi (17 kPa)

		Minimum Distance (ft)	
Type of Tank	Protection	From Property Line that Is or Can Be Built Upon, Including the Opposite Side of a Public Way	From Nearest Side of Any Public Way or from Nearest Important Building on the Same Property
Any type	Protection for exposures*	1½ × value in Table 22.4.1.1(b) but not less than 25 ft	1½ × value in Table 22.4.1.1(b) but not less than 25 ft
	None	3 × value in Table 22.4.1.1(b) but not less than 50 ft	1½ × value in Table 22.4.1.1(b) but not less than 25 ft

For SI units, 1 ft = 0.3 m.
*See definition 3.3.46, Protection for Exposures.

22.4.1.5 Tanks storing unstable liquids shall be located in accordance with Table 22.4.1.5 and Table 22.4.1.1(b).

22.4.1.6 Tanks storing Class IIIB stable liquids shall be located in accordance with Table 22.4.1.6.

Exception: If located within the same diked area as, or within the drainage path of, a tank storing a Class I or Class II liquid, the tank storing Class IIIB liquid shall be located in accordance with 22.4.1.1.

22.4.1.7 Where two tank properties of diverse ownership have a common boundary, the authority having jurisdiction shall be permitted, with the written consent of the owners of the two properties, to substitute the distances provided in 22.4.2 for the minimum distances set forth in 22.4.1.1.

22.4.1.8 Where end failure of a horizontal pressure tank or vessel can expose property, the tank or vessel shall be placed with its longitudinal axis parallel to the nearest important exposure.

22.4.2 Shell-to-Shell Spacing of Adjacent Aboveground Storage Tanks.

22.4.2.1* Tanks storing Class I, Class II, or Class IIIA stable liquids shall be separated by the distances given in Table 22.4.2.1.

22.4.2.1.1 Tanks that store crude petroleum, have individual capacities not exceeding 3000 bbl [126,000 gal (480 m^3)], and are located at production facilities in isolated locations shall not be required to be separated by more than 3 ft (0.9 m).

22.4.2.1.2 Tanks used only for storing Class IIIB liquids shall not be required to be separated by more than 3 ft (0.9 m) provided they are not within the same diked area as, or within the drainage path of, a tank storing a Class I or Class II liquid. If located within the same diked area as, or within the drainage path of, a tank storing a Class I or Class II liquid, the tank storing Class IIIB liquid shall be spaced in accordance with the requirements for Class IIIA liquids in Table 22.4.2.1.

22.4.2.2 A tank storing unstable liquid shall be separated from any other tank containing either an unstable liquid or a Class I, II, or III liquid by a distance not less than one-half the sum of their diameters.

22.4.2.3 Where tanks are in a diked area containing Class I or Class II liquids or in the drainage path of Class I or Class II liquids and are compacted in three or more rows or in an irregular pattern, greater spacing or other means shall be

GEOTECHNICAL EXPLORATION
FOR AT&T GALVESTON SHERWOOD – UST REPLACEMENT PROJECT
LOCATED AT 2102 59TH STREET
GALVESTON, TEXAS

Reported to

MR. MARK PASQUA, PM
AT&T CRE D&C
BELLAIRE, TX

Prepared By

EARTH engineering, inc.

down to earth solutions
for your complex projects

EARTH ENGINEERING, INC.
HOUSTON, TEXAS

THE HOUSTON 100

Spotlighting Houston's Fastest-Growing Private Companies
A program of UH Small Business Development Center
2001 Winner

Project No: EE-1337012-G

December 23, 2013

EARTH ENGINEERING, INC.

Geotechnical, Materials Testing & Environmental Consultants

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down to earth solutions for your complex projects

December 23, 2013

Mr. Mark Pasqua, PM
At&t CRE D&C.
6500 WLS, Zone 1.2
Bellaire, TX 77401

Report No.: EE-1337012-G
At&t Project & Authorization #:T18193/9232644

Subject: **GEOTECHNICAL EVALUATION FOR THE PROPOSED AT&T GALVESTON SHERWOOD – UST REPLACEMENT PROJECT AT 2102 59TH STREET IN GALVESTON, TEXAS**

Dear Mr. Pasqua:

Earth Engineering, Inc. is pleased to submit the results of the geotechnical exploration study for the above-referenced project.This report briefly presents the findings of the study along with our conclusions and recommendations for the design of the foundation for the above project.

We appreciate the opportunity to serve you and look forward to working with you in other future projects. We also look forward to providing the materials testing inspection phase on this project.

Should you have any questions regarding this report or any questions pertaining to soils engineering or materials testing, please do not hesitate to call me at (713) 681-5311 or e-mail me at moes@eartheng.com at any time.

Yours very truly,
EARTH ENGINEERING, INC.

Sanjay Dhakal, MSCE, E.I.T.
Staff Geotechnical Engineer

Moe A. Shihadeh, MSCE, P.E. (75304)
Principal

STATE OF TEXAS
M.A. SHIHADEH
75304
LICENSED
PROFESSIONAL ENGINEER

12/23/2013

MAS/cy

Date: 12/23/2013
Moe A. Shihadeh, P.E - # 75304
Earth Engineering, Inc # F-5045

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LIST OF ILLUSTRATIONS

1.0 INTRODUCTION

Planning is underway for the construction of the proposed above ground storage tank at 2102 59th Street in Galveston, Texas. Furnished information indicates that the tank will be approximately 11'2" X 6"10" and will be 4'7" deep. We understand that a mat foundation system will be utilized to support the replacement tank.

2.0 SCOPE OF WORK

The scope of work is presented below:

- Drilling and sampling one (1) boring to a depth of 50 feet within the proposed tank area

- Obtaining continuous soil samples to a depth of ten feet, and then at 5 foot intervals thereafter to the boring termination depths.

- Earth Engineering will perform granular soil sampling utilizing the Standard Penetration Test (split spoon sampler) by driving. Blow counts will be recorded as produced by a 140-pound weight falling 30 inches (ASTM D 1558). Cohesive soils will be sampled using a thin walled sampler (Shelby Tube) hydraulically pushed into the soil (ASTM D 1587).

- Performing laboratory tests on selected representative soil samples to develop the engineering properties of the soil. These tests may include pocket penetrometers, percent moisture content, percent passing 200 sieves, dry densities, Atterberg Limits, consolidation tests unconsolidated undrained triaxial and unconfined compression tests, as deemed appropriate.

- Utilizing the results of observations both in the field and in limited laboratory tests, Earth Engineering will author a report that will include the following subjects:

  - ❖ soil stratigraphy: soil encountered up to 50 feet

  - ❖ groundwater conditions and groundwater control during construction

  - ❖ boring log information will include all laboratory test results and field observations

  - ❖ recommend most feasible foundation types to support the tank.

  - ❖ recommend the foundation depth and the allowable bearing capacity for the foundation system

- ❖ perform detailed settlement analysis including consolidation and elastic settlement
- ❖ present plates necessary to calculate uplift capacity and lateral capacity of drilled and underreamed piers, if necessary
- ❖ recommend OSHA requirements pertaining to stable slopes during trenching excavations
- ❖ recommend construction considerations, as deemed necessary
- ❖ recommend back-fill material specifications
- ❖ Incorporating all of the above into a geotechnical engineering report which is performed under the direction of, and signed by, a professional engineer registered in the State of Texas.

3.0 SUBSURFACE EXPLORATION

3.1 Sampling Techniques

The subsurface conditions were explored by a total of one (1) boring. The boring location is shown on Plate 1.

Samples in cohesive and semi-cohesive soils (clays, sandy clays, and silty clays) were obtained using a three-inch diameter Shelby Tube sampler advanced hydraulically by one stroke in accordance with the procedures outlined in ASTM D-1587. Samples were extruded in the field, visually classified, and a strength estimate obtained with a pocket penetrometer. Penetrometer readings are tabulated on the log of boring. Representative portions of the samples were wrapped with aluminum foil and sealed for transport to the laboratory for further testing.

Cohesionless and semi-cohesionless soils (sands and silts) if present were sampled using the Standard Penetration Test (SPT) split spoon barrel driven 18 inches by a 140-pound hammer falling 30 inches in accordance with procedures outlined in ASTM D-1586. The number of blows (N) required to advance the split-spoon barrel the last 12 inches are recorded for each corresponding sample on the individual log of boring. Samples obtained from the split-spoon barrel were visually classified in the field and wrapped with aluminum foil and sealed for transport to the laboratory for further testing.

3.2 Sample Disposal

In general, samples tested or not tested will be discarded 30 days subsequent to submittal of the final report unless if otherwise notified by the client.

4.0 LABORATORY TESTING

The laboratory-testing program was designed and directed towards evaluating the physical and engineering properties of the subsoils. Physical properties include Atterberg limits (liquid limits and plastic limits), moisture content for clays and percent passing #200 sieve for sands. Engineering properties include shear strength of the soil, compressibility of the soils, and the swell characteristics of the soils. It should be noted that the testing program varies for each project and depends solely on the project budget and emphasis. Typically, Earth Engineering, Inc. specifies the anticipated testing program in each proposal. The tests undertaken in this program included the following:

Laboratory Test	Applicable Test Standard	Number of Tests
Liquid Limit, Plastic Limit, and Plasticity Index of Soil	ASTM D-4318	1
Moisture Content	ASTM D-2216	8

Laboratory test results are presented in the Logs of Borings, Plate 3. A Key to Log Terms and Symbols is presented in Plate 4. It should be noted that the soils were classified in accordance with the Unified Soil Classification System (ASTM D-2487).

5.0 SUBSURFACE STRATIGRAPHY

5.1 Site Location and Conditions

The site is located at 2102 59th Street in Galveston, Texas. Please refer to Plate 1 for a map designating the location of the site. At the time of drilling, the project site was occupied by an at&t building.

Based on our visual observations during drilling operations, it appears that the site and the surrounding area exhibit topographic variations of less than four (4) feet. Surveying map with existing and proposed elevations including the finished floor elevations was not available at this time.

5.2 Subsurface Conditions

The subsurface conditions at the project site were evaluated based on a boring. Soil stratigraphy details are presented on the Log of Borings, Plate 3. *The soil strata listed below are general in nature and highlight major subsurface soils. The boring logs include a summary of soil properties at certain depths***.**

The soil stratigraphy shown on each boring log represents the conditions and approximate boundaries between strata at that specific boring location only. The actual transitions between strata may be gradual. Variations will occur and should be expected at locations away from each boring location. Based on field logs and laboratory test results, the subsoil stratigraphy is approximately as follows:

Stratum No.	Range* of Depth, ft.	Soil Description and Classification (Based on Unified Soil Classification System)
I	0-50 at B-1	Loose to dense, light gray, dark gray tan **SILTY SAND (SM)/SILTY SANDY CLAY(CL-ML)**

*These stratum depths are based on measurements referenced from ground surface at the time of our drilling activities on December 13, 2013. Please note that the depths of the stratum changes vary; please refer to the boring log presented on Plate 3 for stratum changes at specific location.

Stratum I consist of loose to dense silty sand/silty sandy clay. The average standard penetration blow count ranges from 4 to 44.

5.3 Groundwater Conditions

The boring was drilled using flight auger (dry method) above water table and wash boring below the water table. Groundwater was encountered at a depth of 7-feet during drilling operation

Groundwater generally fluctuates due to seasonal rainfall quantity, the presence of wells in the vicinity of the site, location (upstream or downstream) and the close proximity of the site to a bayou, or a stream, if any.

Accurate groundwater measurements can be measured only using piezometers or monitor wells. Piezometer installation was beyond the scope of this project.

6.0 ANALYSIS AND RECOMMENDATIONS

6.1 General

In order to assure a satisfactory foundation performance, foundations should be designed to fulfill the following requirements:

- The imposed structural loads should not exceed the allowable bearing capacity

- The potential total settlement and differential settlement are within tolerable limits of the structure, and

Foundation design recommendations are presented in the following paragraphs.

6.2 Foundation Recommendations

It is recommended that the proposed tank be founded on the concrete ring-wall foundation. Groundwater was encountered at a depth of 7 feet during drilling operations. Foundation recommendations are presented as follows:

Foundation Type	Depth, below existing grade (feet)	Allowable Bearing Capacity (psf) Dead Plus Sustained Live Load Factor of Safety = 3	Allowable Bearing Capacity (psf) Total Load Factor of Safety = 2
Mat Foundation	8	2,000	3,000

Note:

(1) Since ground water was encountered at a depth of 7-feet below the existing grade, dewatering of the foundation excavation must be performed prior to placement of the foundation.

(2) The ground water must be lowered at least three (3) feet below the bottom of the excavation to allow the excavation and placement of the mat foundation.

(3) The tank must be anchored to resist the buoyancy forces from the hydrostatic pressure. Please refer to Section 6.3 for detail.

(4) Shoring is recommended to prevent caving of foundation wall.

It should be noted that the bearing capacity values are based on the following construction assumptions:

- Undisturbed excavation bottom.

- Seepage is not allowed into the excavation and therefore the bottom of the excavation is not softened due to the seepage forces.
- Bottom blowout does not occur during excavation.

6.3 Uplift (Buoyancy) Forces

The foundation should be designed to resist the imposed uplift pressures. The uplift pressures are functions of the excavation depth and the groundwater level. The foundation should be designed to resist the maximum anticipated uplift pressure during a flood condition where the water level is at the ground level. The following formula can be used to calculate the uplift pressure:

$\sigma_{uplift} = 62.4 \times h_{groundwater}$

where:

σ_{uplift} = Uplift pressure in psf
$h_{groundwater}$ = Depth to the bottom of foundation (in flood conditions)

The most critical uplift occurs when the water level is at the ground surface and the tank is empty.

The weight of the structure and the weight of the backfill soil above it can resist the uplift pressures. The following formula can be used to calculate the vertical stress induced by the weight of the soils above the foundation:

$\sigma_{vertical} = \gamma_{soil} \times h_{soil\ above\ foundation}$

where:

$\sigma_{vertical}$ = Vertical stress, psf
γ_{soil} = 120 pcf for non-flood conditions (i.e., hydrostatic groundwater level below the bottom of foundation)
γ_{soil} = 57 pcf for flood conditions (i.e., hydrostatic groundwater level at the ground surface level)

In order to increase the uplift resistance of the foundation, one or more of the following options can be used:

1) Increase the thickness of the base slab.

2) Utilize the concrete anchor at the bottom of the foundation. Both concrete block and straight shafts can be utilized as the anchor. In straight shaft method, the resistance against uplift will be resisted by both skin friction developed between the wall and the surrounding soil and weight of the structure. However, the frictional resistance between the wall and the soil

depends solely on the method of construction used. The skin friction is recommended as follows:

Depth Below Existing Grade (feet)	Allowable Skin Friction (psf) Total Load Factor of Safety = 2
8-18	300

6.4 Bottom Stability

Due to the presence of groundwater at a depth of 7 feet, the ground water must be lowered at least three (3) feet below the bottom of the excavation.

6.5 Excavations

Please refer to section 7.3 for details.

6.6 Effect of the New Construction on Existing Adjacent Foundations

Construction adjacent to existing foundations involves special considerations. The primary concern is that construction activities may cause movement in an existing foundation. This is especially true if the existing foundation has experienced some movement prior to the new construction. Although it is virtually impossible to eliminate all risk of additional movement and distress associated with the new construction, the following are some procedures that are commonly employed to reduce the effect of the new construction on existing adjacent foundations:

- Minimize use of vibrating of impact equipment.
- Do not undermine or encroach on existing foundations.
- Minimize the “open time” of all excavations.
- Monitor the existing foundation for movement during the new construction.

The Geotechnical Consultant should review foundation layouts and excavation details, and should be involved in the implementation and evaluation of the monitoring program during construction.

It should also be pointed out that the expected settlement of new foundations could cause movements in the old foundation or its interface with the new structure. Such movements could cause some distress during or after construction. We recommend designing a “flexible” joint between the new and the existing structures to allow for some differential settlement. The Structural Engineer or Architect on the project should address these issues.

7.0 CONSTRUCTION CONSIDERATIONS

7.1 Site Preparation

- Soft soils should be removed until firm soil is reached. The soft soils can be aerated and placed back in eight-inch loose lifts and compacted to 95% as specified by ASTM D-698.

- Tree stumps, tree roots, and any existing structure and pavement should be removed from the structure area. If the tree stumps and roots are left in place, settlement and termite infestation may occur. Once a root system is removed, a void is created in the subsoil. It is recommended to fill these voids with structural fill or cement-stabilized sand and compact to 95% as specified by ASTM D-698.

- Depending on the virgin site conditions, organic is found at depths of to 2-3 feet below the existing grades. All organic materials should be scarified and removed prior to subgrade preparation.

- **Any low-lying areas including ravines, ditches, swamps, etc. should be filled with structural fill and placed in eight-inch lifts**. Each lift should be compacted to 95% of the maximum dry density as specified by ASTM D-698.

- The exposed subgrade should be scarified to a minimum depth of six (6) inches in the driveway and slab areas. The subgrade should then be compacted to 95% of the maximum density as determined by the Standard Moisture Density Relationship (ASTM D-698). A sheep-foot roller should be utilized to compact the fill soils. A smooth-drum compaction equipment should then be utilized to seal the compacted fill. In the event that the upper six-(6) inches cannot be compacted due to excessive moisture, we recommend that these soils be excavated and removed or chemically stabilized to provide a firm base for fill placement.

- Proof rolling should be performed using a heavy tired loaded truck or pneumatic rubber-tired equipment weighting about 24 tons.

- The fill soils placed on the site should consist of low plasticity sandy clays with plasticity indices ranging between 12 and 20.

- Sands or silts are not considered fill and therefore, should not be used in lieu of sandy clays.

- The fill soils should be placed in loose eight-inch lifts and compacted to 95% of the maximum density as determined by ASTM D-698.

- The fill soils should extend at least five feet beyond the perimeter of the tank. In addition, the floor slab should be placed as soon as possible after the tank pad is prepared. If the tank pad is left exposed to rainfall, perched groundwater conditions may develop which will undermine the integrity of the floor slab. All trenches (sewer, water, cable, electrical) should be properly backfilled and compacted to 95% of the maximum dry densities. Sand or permeable materials should not be used as backfill. Improperly backfilled and improperly compacted trench, if left exposed will also be another source for perched groundwater conditions. In general, perched water tends to be trapped within the fill. The trapped groundwater tends to soften the subgrade. Positive drainage should be maintained across the entire tank pad.

- A qualified soil technician should monitor all earthwork operations. Field density tests should be conducted on each lift using a nuclear density gauge. The gauge should be calibrated every day.

- Prior to field density tests, a 50-pound sample from the subgrade soils should be obtained. A similar sample should be obtained from the fill soils. A Standard Moisture Density Relationship (ASTM D-698) should be performed on each sample in order to obtain an optimum moisture content and a maximum dry density. The field density tests should be compared to these results every time the soils are tested in the field.

The above recommendations are applicable to slabs, driveways, pavements and any structures that are supported directly on-grade

7.2 Site Drainage

Site drainage should be established during the first phase of construction. Water should not be allowed to collect or pond on the construction site. The site should be graded in such a manner to shed all rainwater away from the structure and foundation. *Positive site drainage should be maintained throughout the life of the tank.*

7.3 Excavations

7.3.1 General

In general, two types of excavation systems may be required during the construction of this project. We expect that the foundations will be constructed using shallow excavations with depths not exceeding 8 feet, which would be open for relatively short periods of time. Deeper excavation may be open for a much longer period of time. We also understand that the excavations may be partially or completely sloped. All excavations should in minimum conform to Occupational Safety and Health Act (OSHA) requirements.

7.3.2 Shallow Excavations

In general, shallow excavations refer to excavations with depths not exceeding 5-8 feet. These excavations are usually kept open for a relatively short period of time. This type of excavation is generally performed for spread footings and underground utilities. Depending on excavation geometry, depth of the excavation and duration of the excavation, shoring (excavation support) may or may not be required. In general, shoring may be required to provide excavation stability for footings placed at relatively deeper depths and for excavations kept open for a longer period of time. However, all such excavations should also conform to applicable OSHA regulations.

7.3.3 OSHA Requirements

Excavation or trenching operations should be performed in accordance with the Occupational Safety and Health Act (OSHA) requirements as detailed in 29 CFR part 1926, subpart p, as amended, including rules published in accordance with the Federal Register, Volume 54, number 209, dated October 31, 1989 as a minimum. In addition, the provisions of the Legislature (H. B. No. 662 and H. B. No. 665) should be satisfied.

The OSHA system classifies soil and rock taking into consideration the following:

- in-situ soil properties (shear strength)
- the presence of fissures in the soil matrix
- the classification of the soil (sands, clay, rock)
- construction considerations, including vibrations from heavy traffic, shaft driving, or similar effects
- submerged soil and seepage

The OSHA system classifies the soils into three categories: A, B, and C. It should be noted that OSHA classification categories are valid for trenches with maximum depth of 20 feet. Maximum allowable slopes are presented below.

Maximum Allowable Slopes

OSHA Classification	Short-Term Slope[1] (H:V)	Long-Term Slope[2] (H:V)
A	½ : 1	¾ : 1
B	¾ : 1	1 : 1
C	1 ½ : 1	2 : 1

(1) 48 hours or less
(2) Up to 72 hours

Based on the above discussion, most of the soils encountered in this site can be classified as follows:

Soil Description	OSHA Classification
Silty Sandy Clays/Silty Sands	C

The existing soil at the job site started caving in after 4-feet below existing grade during drilling operation. Hence, we highly recommend utilizing shoring to support the trench wall to protect it from caving in sand.

7.3.4 Excavations Inspection

We recommend that our geotechnical engineer observe the excavations. He should compare the soils exposed with those encountered in the soil test boring and document results. Any significant differences should be brought to the representative of the owner along with appropriate recommendations.

The excavations should be performed with equipment capable of providing a relatively clean bearing area. We recommended that the excavations be made with a smooth-mouth bucket to minimize the amount of loose material in the excavation bottom and the disturbance to the bearing area.

The bearing surface should be protected against disturbance and deterioration. Any bearing area not concreted within the day it is exposed should be covered with a thin seal slab.

8.0 DESIGN REVIEW

EARTH ENGINEERING, INC. should be given the opportunity to review the construction design documents prior to release for bid to assure that our recommendations are interpreted as intended in our report. If we are not given the opportunity to review the final documents, EARTH ENGINEERING, INC. will not be responsible for misinterpretations of our recommendations by other parties. The design review is not part of our scope of work and would be an additional charge.

9.0 CONSTRUCTION MONITORING

Quality control (QC) is extremely important in the construction industry. A quality control program should be initiated at the beginning of the project. The program should be designed by an accredited laboratory to cover all stages of construction from the ground up. EARTH ENGINEERING, INC. will be pleased to provide you with these services.

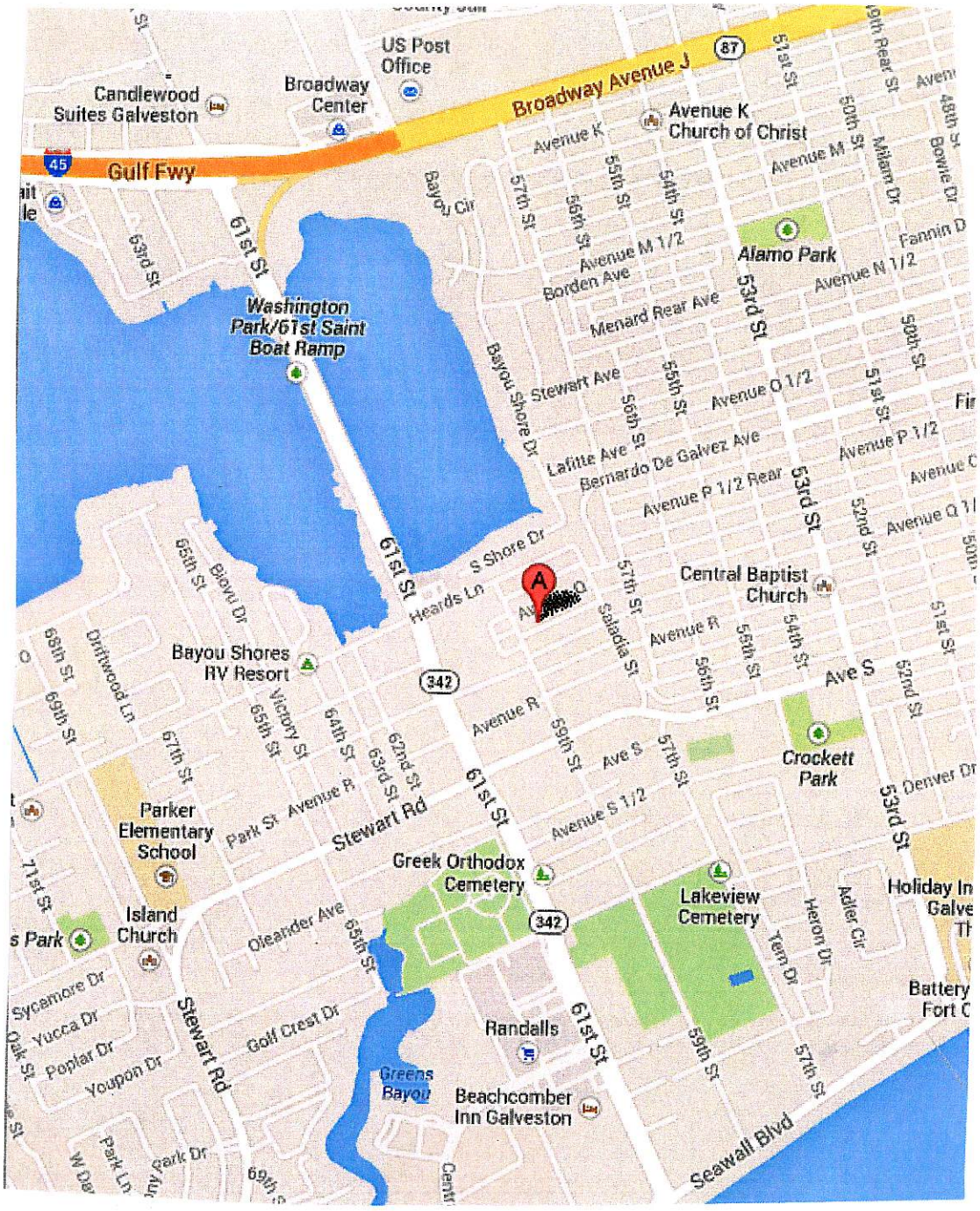
10.0 LIMITATIONS

Our site exploration was based on one (1) boring at predesignated location. Soil stratigraphy may change within the site. In the event that different soil conditions are encountered in the field, EARTH ENGINEERING, INC. should be immediately notified.

This study was performed in accordance with generally accepted geotechnical engineering practices for design purposes only under the supervision of a licensed professional engineer in the State of Texas. Fault study was not included in our current scope of work.

Recommendations provided herein the report are valid for one year from the date of submission of the report. After one year, Earth Engineering, Inc. should be contacted to review the validity of the recommendations.

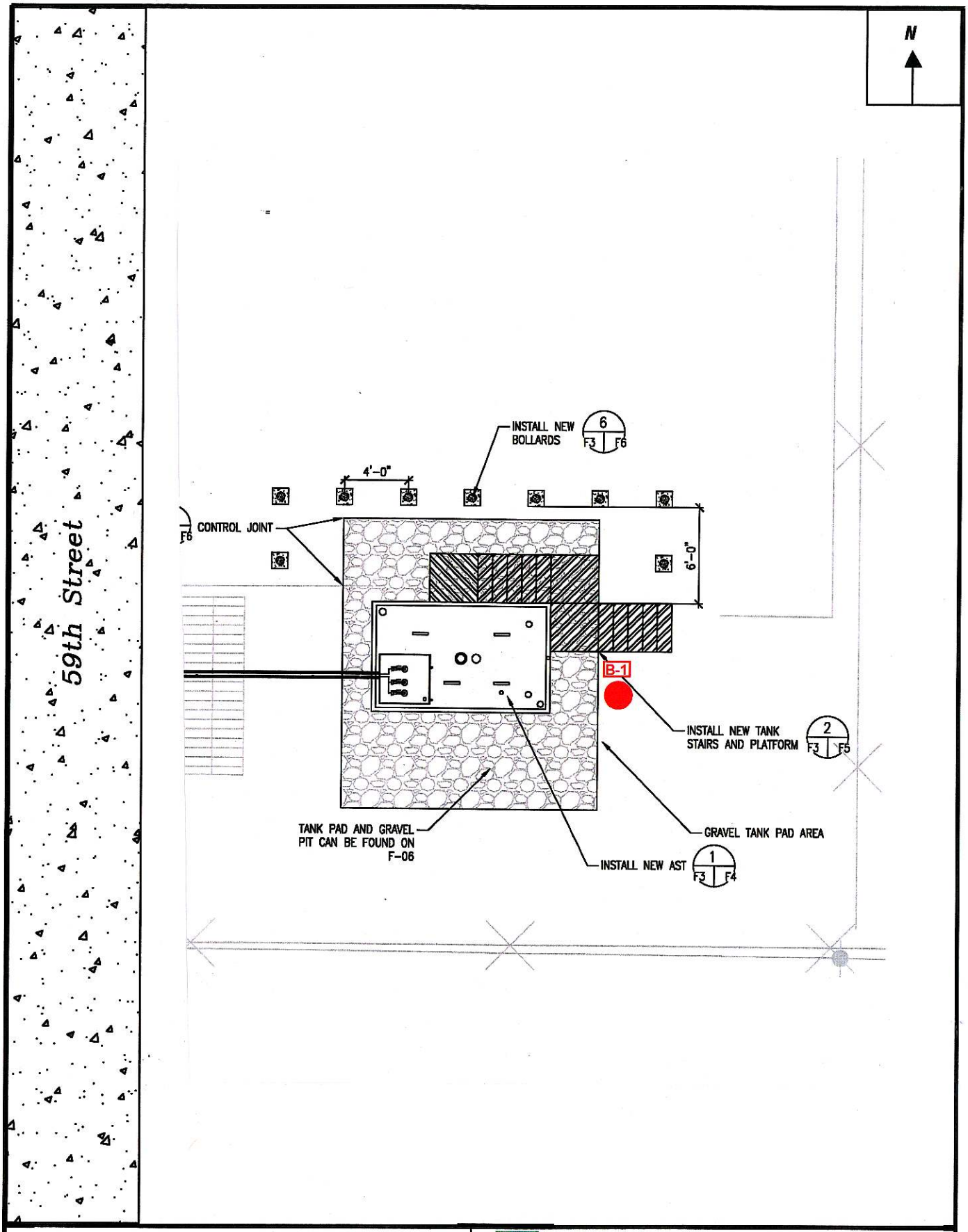
In the event that any changes in the nature, design or location of the proposed tank are made, the conclusions or recommendations presented in this report are not valid until the changes are reviewed by EARTH ENGINEERING, INC. and the conclusions and recommendations are modified in writing.



A– Site Address

Site Location Map	*EARTH ENGINEERING, INC.* Geotechnical, Materials and Environmental Consultants	
Proposed Tank Replacement 2102 59th Street Galveston, Texas	*SCALE: N.T.S.*	*DATE: 12/13/2013*
	PROJECT: EE1337012–G	*DWG. 001*

PLATE NO. 1



Boring Location Map	*EARTH ENGINEERING, INC.* Geotechnical, Materials and Environmental Consultants	
Proposed Tank Replacement *2102 59th Street* *Galveston, Texas*	*SCALE: N.T.S.*	*DATE: 12/13/2013*
	PROJECT: EE1337012-G	*DWG. 002*

PLATE NO. 2

LOG OF BORING B-1

PROJECT: Proposed Storage tank replacement at 2102 59th Street in Galveston, TX **ELEVATION:** Existing

BORING LOCATION: See Plate 2 **CLIENT:** Gensler (Mr.Tim Mose) **PROJECT NUMBER:** EE-370

DEPTH/ ELEVATION (feet)	GRAPHIC LOG	SAMPLING METHOD	DESCRIPTION Type of Boring: Flight Auger Surface Elevation: Existing	USCS SYMBOL	SPT, BLOWS/FT	POCKET PENETROM. (TSF)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	% < #200	COHESION, 'C' (KSF)	FAILURE STRAIN (%)
0			Loose, gray SILTY SAND	SM										
			2											
			Loose light gray CLAYEY SAND	SC	8									
			4											
			Medium dense, tan gray SILTY SAND --dark brown from 6-10 feet --dense from 8-15 feet	SM	11 12 40									
10					44									
			--medium dense, dark gray, rock pieces from 18-20 feet		16									
20					15									
			--dense, shells from 28-30 feet		33									
30			--medium dense, gravel pieces from 33-35 feet		28									
			38											
			Loose, dark gray SILTY SANDY CLAY	CL-ML	5									
40			43											
			Loose, gray SILTY SAND with shells	SM	4									
			48											
50			Medium dense, dark gray SILTY SANDY CLAY	CL-ML	10									
			Boring terminated at 50 ft.											
60														

EARTH engineering, inc.
down to earth solutions for your complex projects

WATER LEVEL MEASUREMENTS

▽ **Initial:** 7 ▼ **Final:** 7

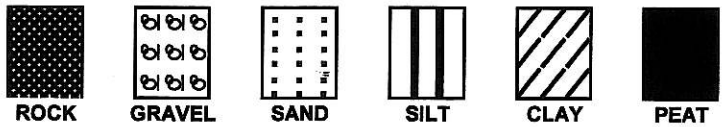
DATE DRILLED: 12/13/13

DRILLER: Eddie

PLATE NO. 3

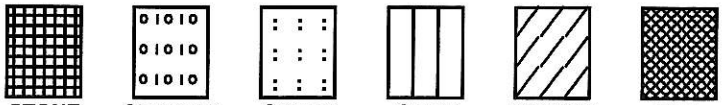
KEY TO LOG TERMS AND SYMBOLS

SOIL TYPE



SAMPLER TYPE

MODIFIERS



UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D 2487

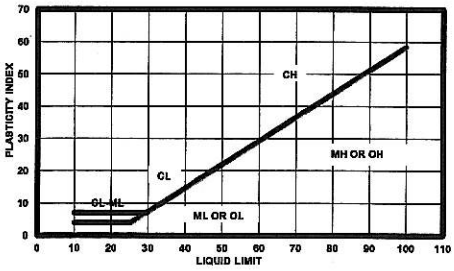
MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS LESS THAN 50% PASSING NO. 200 SIEVE	GRAVEL & GRAVELY SOILS LESS THAN 50% PASSING NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
		W/ APPRECIATE-BLE FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS,GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN 50% PASSING NO. 4 SIEVE	CLEAN SANDS LITTLE FINES	SW	WELL GRADED SAND, GRAVELY SAND (LITTLE FINES)
			SP	POORLY GRADED SANDS, GRAVELY SAND (L.FINES)
		SANDS WITH APPREA. FINES	SM	SILTY SANDS, SAND-SILT MIXTURES
			SC	CLAYEY SANDS,SAND-CLAY MIXTURES
FINE GRAINED SOILS LESS THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS & VERY FINE SANDS,ROCK FLOUR SILTY OR CLAYEY FINE SANDS OR CLAYEY SILT W/PI
			CL	INORGANIC CLAY OF LOW TO MEDIUM PI LEAN CLAY GRAVELY CLAYS, SANDY CLAYS, SILTY CLAYS
			OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PI
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY FAT CLAYS
			OH	ORGANIC CLAYS OF MED TO HIGH PI, ORGANIC SILT
HIGHLY ORGANIC SOIL			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS
UNCLASSIFIED FILL MATERIALS				ARTIFICIALLY DEPOSITED AND OTHER UNCLASSIFIED SOILS FILL MATERIALS

CONSISTENCY OF COHESIVE SOILS

CONSISTENCY	UNCONIFINED COMP. STRENGTH IN TSF
VERY SOFT	0 TO 0.25
SOFT	0.25 TO 1.0
FIRM	1.0 TO 1.75
STIFF	1.75 TO 3
VERY STIFF	3.0 TO 4.5
HARD	4.5+

RELATIVE DENSITY - GRANULAR SOILS

CONSISTENCY	N-VALUE (BLOWS PER FT)
VERY LOOSE	0-4
LOOSE	4-9
MEDIUM DENSE	10-29
DENSE	30-49
VERY DENSE	> 50 OR 50+



CLASSIFICATION OF GRANULAR SOILS

U.S. STANDARD SIEVE SIZE(S)

6"	3"	3/4"	4	10	40	200	
BOUL--DERS	COBBLES	GRAVEL		SAND			SILT OR CLAY / CLAY
		COARSE	FINE	COARSE	MEDIUM	FINE	
152	76.2	19.1	4.76	2.0	0.42	0.074	0.002

GRAIN SIZE IN MM

Central Registry Query - Regulated Entity Information

Regulated Entity Information

RN Number: RN102400488
Name: GALVESTON SHERWOOD
Primary Business: No primary business description on file.
Street Address: 2102 59TH ST, GALVESTON TX 77551 5023
County: GALVESTON
Nearest City: No near city on file.
State: TX
Near ZIP Code: 77550
Physical Location: No physical location description on file.

Affiliated Customers - Current

Your Search Returned **1** Current Affiliation Records (View Affiliation History)

1-1 of 1 Records

CN Number	Customer Name	Customer Role	Details
CN600261663	SOUTHWESTERN BELL TELEPHONE LP	OWNER OPERATOR	

Industry Type Codes

Code	Classification	Name
No NAICS or SIC Codes on file.		

Permits, Registrations, or Other Authorizations

There are a total of **2** programs and IDs for this regulated entity. Click on a column name to change the sort order.

1-2 of 2 Records

Program	ID Type	ID Number	ID Status
PETROLEUM STORAGE TANK REGISTRATION	REGISTRATION	19558	INACTIVE
PETROLEUM STORAGE TANK STAGE II			

Central Registry

Detail of: **Petroleum Storage Tank Registration 19558** View Certificate of Delivery

For: **GALVESTON SHERWOOD (RN102400488)**

2102 59TH ST, GALVESTON

Registration Status: **INACTIVE**

Held by: **SOUTHWESTERN BELL TELEPHONE LP (CN600261663)**

OWNER OPERATOR Since 09/01/1988 View Compliance History

Mailing Address: 308 S AKARD ST DALLAS, TX 75202-5315

Related Information:

Investigations

Registration Information

There is no information related to this Registration in the following categories:

Commissioners' Actions
Correspondence Tracking
Effective Enforcement Orders
Criminal Convictions
Proposed Enforcement Orders
Complaints
Discharges
Emergency Response Events
Emission Events
Fish Kills
Other Incidents
Periodic Reports

14Z-37 (1305 Avenue M 1/2) Request for variances from the Galveston Zoning Standards Section 29-65 regarding lot area and width requirements in conjunction with a replat. The Property is legally described as Lot 6, Southeast Block 22, Galveston Outlots, in the City and County of Galveston, Texas.
Applicant: Suzanne Corbin
Property Owner: Athena Housing Partners, LLC

Case Manager: Adriel Montalvan, Urban Planner II

Existing Zoning and Land Use:

Zoning	General Residence, Neighborhood Conservation District-1 (GR-NCD-1)
Land Use	Residential

Surrounding Zoning and Land Use:

	North	South	East	West
Zoning	General Residence, Neighborhood Conservation District-1 (GR-NCD-1)	General Residence, Neighborhood Conservation District-1 (GR-NCD-1)	General Residence, Neighborhood Conservation District-1 (GR-NCD-1)	General Residence, Neighborhood Conservation District-1 (GR-NCD-1)
Land Use	Residential	Residential	Residential	Residential

Property Owner Notification as of October 8, 2014:

Sent	Returned	In Favor	In Opposition	No Comment
41				

City Department Notifications:

Airport:	No Objection
Building Department:	No Objection
Fire Chief:	No Objection
Fire Marshall:	No Objection
Police Department:	No Objection
Public Works:	No Objection

ANALYSIS

The property owner would like to replat one lot into three. The newly created lots will not meet the minimum lot area and width required for one-family detached dwellings in the General Residence, Neighborhood Conservation District-1 (GR-NCD-1) zoning district.

Requested Variances

	Required	Proposed (Front)	Proposed (Rear)
Area	3,000 sq. ft.	1,328.3 sq. ft.	2,282.8 sq. ft.
Width	40 feet	19.9 feet	N/A

Should the variance request be denied, the applicant will not be able to replat the properties from one lot to three. Should the Zoning Board of Adjustment approve the variance request, the applicant will be required to obtain an administrative plat to officially separate the properties.

Applicant's Justification

Please refer to Attachment "D".

CONDITIONS FOR A VARIANCE

The Board of Adjustment may grant a variance under this Section only if the variance is not prohibited by Section 14.401.C. in Article 14, Administrative Bodies, and if the Board makes a determination in writing that all of the following are demonstrated:

1. The request for the variance is rooted in special conditions of the applicant's property that do not generally exist on other properties in the same zoning district.
2. Due to said special conditions, the literal enforcement of the strict terms of these Land Development Regulations would impose an unnecessary hardship on the applicant.
3. The variance is not contrary to the public interest, in that:
    i. It does not allow applicants to impair the application of these regulations for:
        a. Self-imposed hardships;
        b. Hardships based solely on financial considerations, convenience or inconvenience; or
        c. Conditions that are alleged to be "special," but that are actually common to many properties within the same zoning district.
    ii. The variance will not have a detrimental impact upon:
        a. The current or future use of adjacent properties for purposes for which they are zoned;
        b. Public infrastructure or services; and
        c. Public health, safety, morals and general welfare of the community.
4. The degree of variance allowed from these Land Development Regulations is the least that is necessary to grant relief from the identified unnecessary hardship.
5. The variance shall not be used to circumvent other procedures and standards of these Land Development Regulations that could be used for the same or comparable effect (*e.g.*, if alternative development patterns, alternative development standards, or other flexible measures in these regulations are available that would avoid or mitigate hardship without using a variance, then they must be used).
6. By granting the variance, the spirit of these Land Development Regulations is observed and substantial justice is done.

APPEAL FROM DECISION OF BOARD

In accordance with Section 29-112, any person aggrieved by any decision of the Board, or any officer, department or other Board of the City, may appeal the decision or action of the Board by filing a petition for the same in a court of competent jurisdiction, setting forth that such decision

is illegal in whole or in part, and specifying the grounds for the alleged illegality. Such petition shall be filed with the Court within ten (10) days from the day the Board renders its decision, and not thereafter. The time period set forth herein shall be deemed jurisdictional.

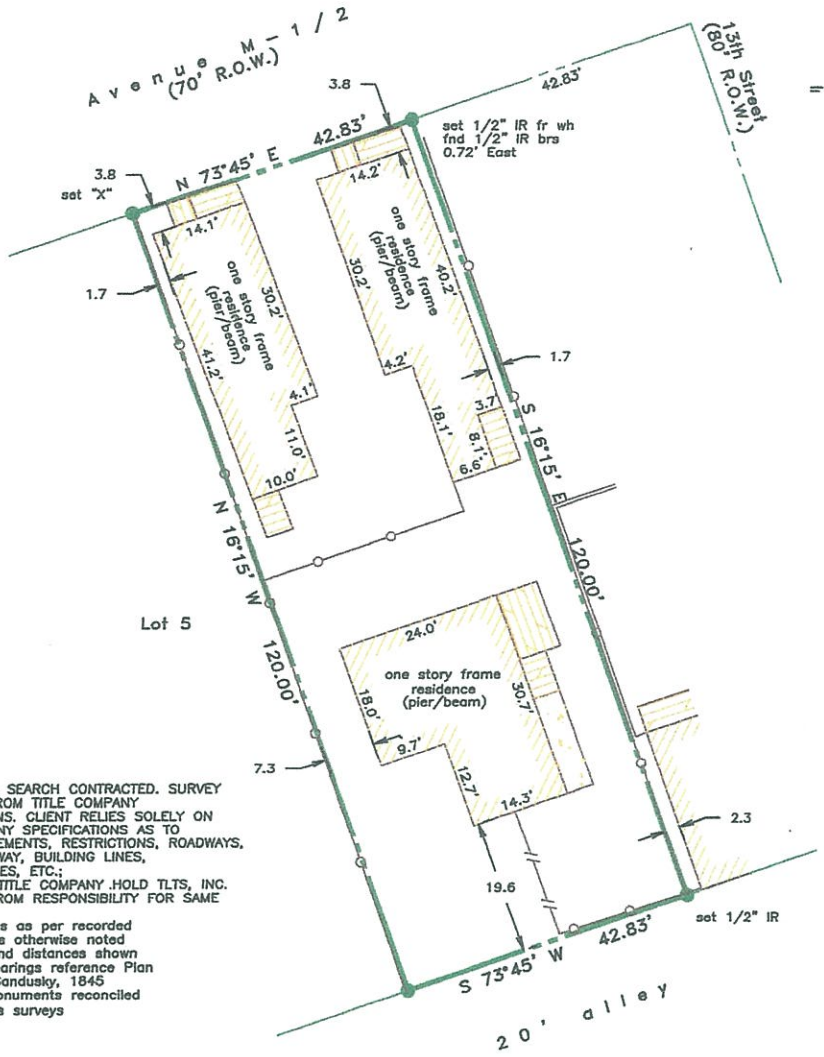
ATTACHMENTS

"A" – Street View / Aerial Map
"B" – Survey
"C" – Site Plan
"D" – Applicant's Narrative

S:\Planning\Planning Division\ZBA\Staff Reports\14zba\14Z-37\14Z-37 STF.doc

Current Survey

NATIONAL FLOOD INSURANCE PROGRAM
FIRM Zone AE
Panel 0026-E
Community #485469
December 6, 2002



NOTES:
NO RECORDS SEARCH CONTRACTED. SURVEY PREPARED FROM TITLE COMPANY SPECIFICATIONS. CLIENT RELIES SOLELY ON TITLE COMPANY SPECIFICATIONS AS TO RECORD EASEMENTS, RESTRICTIONS, ROADWAYS, RIGHTS-OF-WAY, BUILDING LINES, ENCUMBRANCES, ETC.;
CLIENT AND TITLE COMPANY .HOLD TLTS, INC. HARMLESS FROM RESPONSIBILITY FOR SAME

- Restrictions as per recorded plat unless otherwise noted
- True ground distances shown
- Plat & bearings reference Plan of COG, Sandusky, 1845
- Survey monuments reconciled w/previous surveys

Scale: 1" = 20'
10 Feet 0 10 20 30

STATE OF TEXAS
REGISTERED
LAURENCE CHARLES WALL
4814
PROFESSIONAL
SURVEYOR

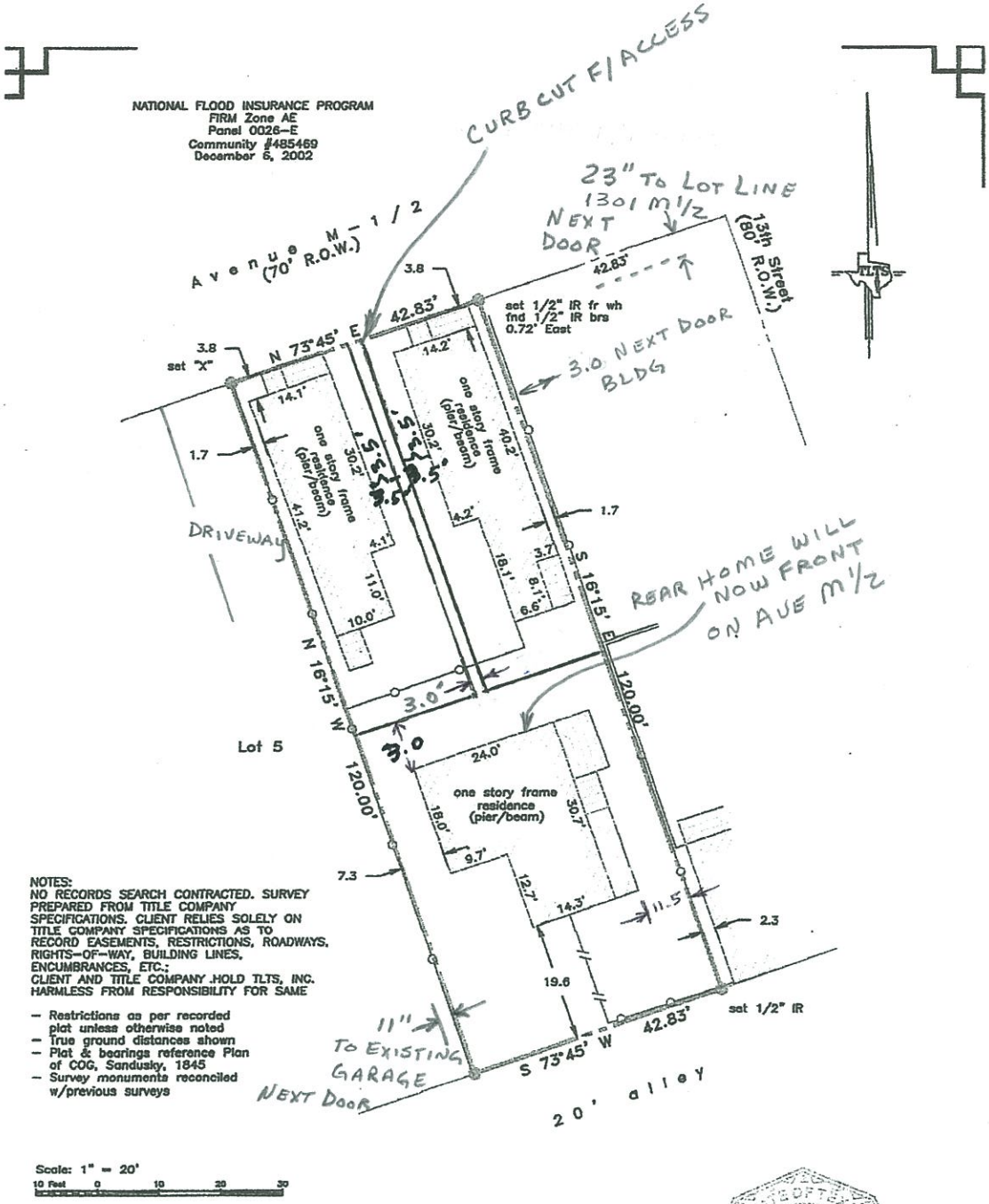
LAND TITLE SURVEY OF A TRACT OF LAND being Lot 6 in the Southeast Block of Outlot 22, in the City and County of Galveston, Texas.

Subject property: 1305 Avenue M-1/2
Galveston County, Texas
To Michael LaPresle and
South-Land Title Co., GF #TP1427564;
I hereby certify that this survey was made on the ground under my direct supervision and that this plat correctly represents the facts found at the time of the survey.

Laurence C. Wall
RPLS #4814
July 24, 2014

TLTS, Inc.
TEXAS LAND TITLE SURVEYORS
1801 Moody Avenue
Galveston, Texas 77550
(409) 765-8883

Site Plan



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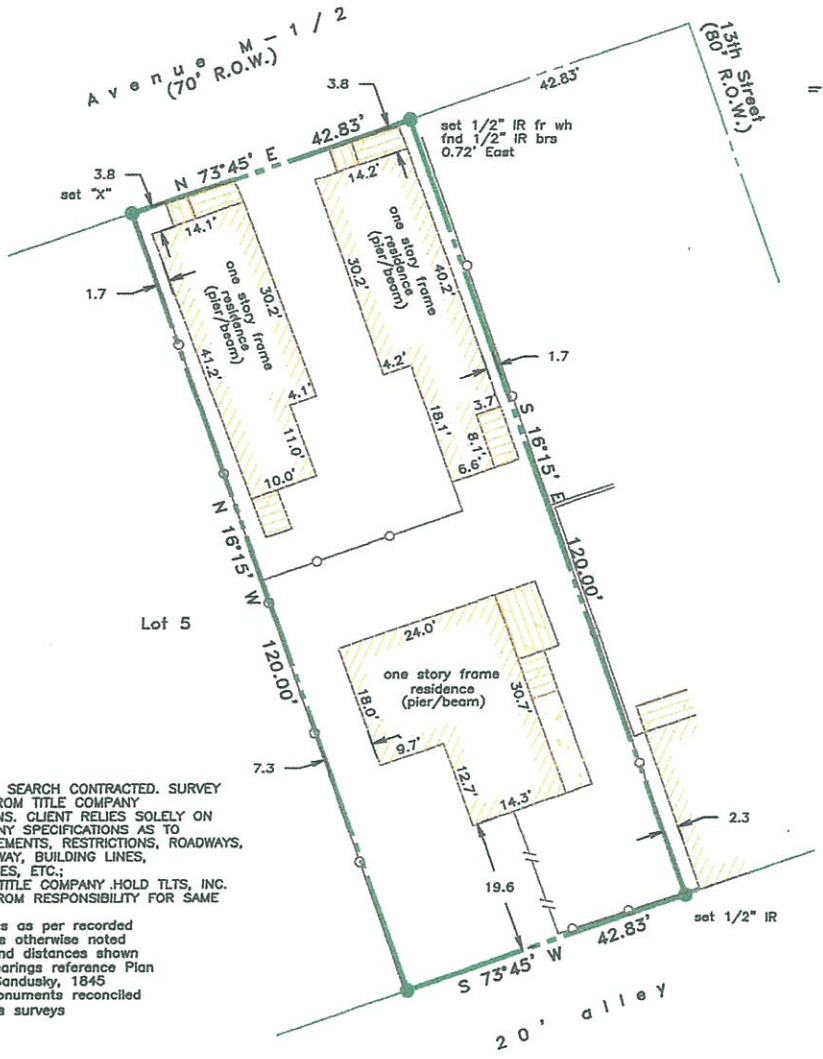
July 24, 2014

TLTS, Inc.
TEXAS LAND TITLE SURVEYORS
1801 Moody Avenue
Galveston, Texas 77550
(409) 765-8883

Current Survey

NATIONAL FLOOD INSURANCE PROGRAM
FIRM Zone AE
Panel 0026-E
Community #485469
December 6, 2002



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SURVEYOR

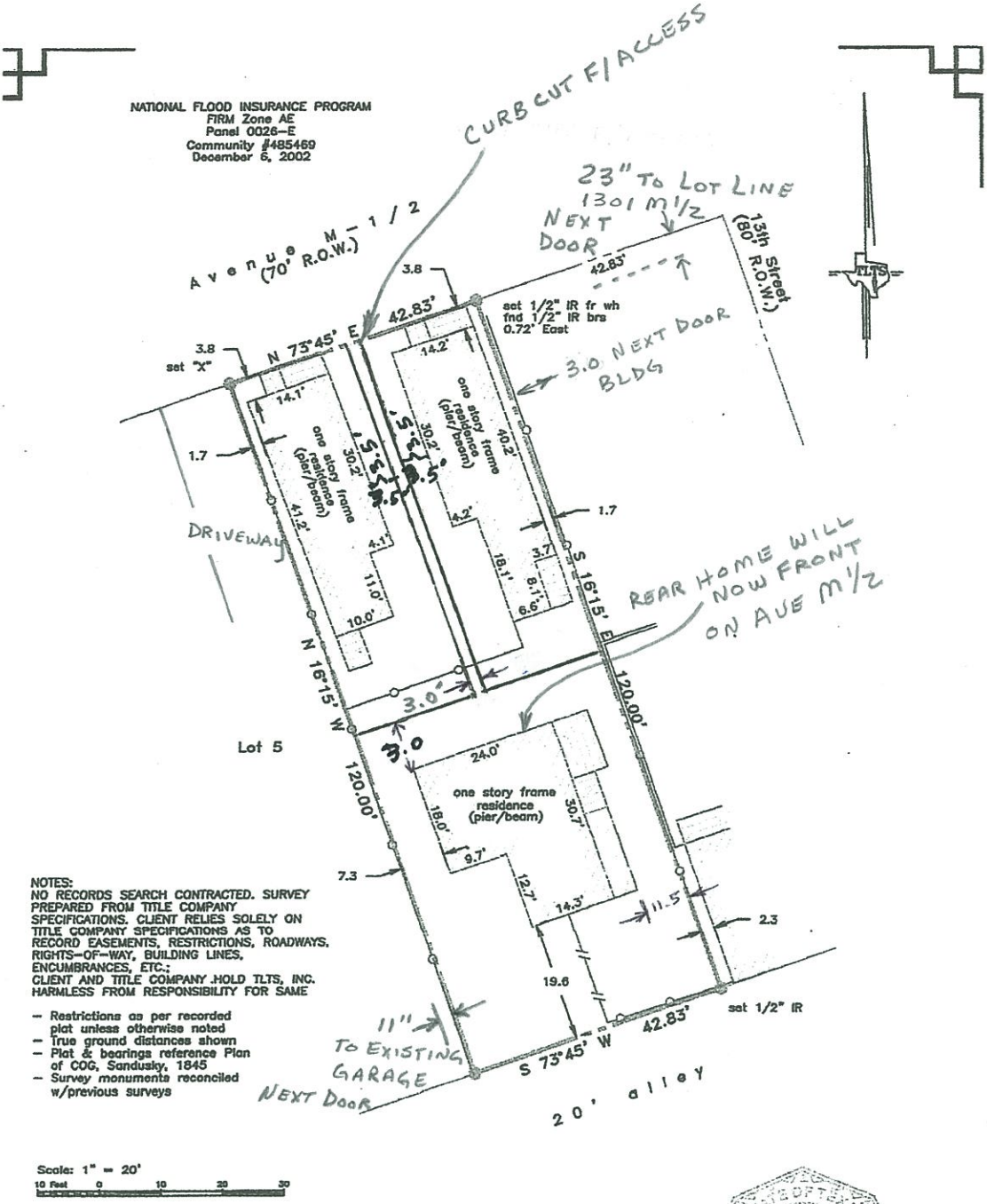
LAND TITLE SURVEY OF A TRACT OF LAND being Lot 6 in the Southeast Block of Outlot 22, in the City and County of Galveston, Texas.

Subject property: 1305 Avenue M-1/2
Galveston County, Texas
To Michael LaPresle and
South-Land Title Co., GF #TP1427564;
I hereby certify that this survey was made on the ground under my direct supervision and that this plat correctly represents the facts found at the time of the survey.

Laurence C. Wall
RPLS #4814
July 24, 2014

TLTS, Inc.
TEXAS LAND TITLE SURVEYORS
1801 Moody Avenue
Galveston, Texas 77550
(409) 765-8883

Site Plan



NOTES:
NO RECORDS SEARCH CONTRACTED. SURVEY PREPARED FROM TITLE COMPANY SPECIFICATIONS. CLIENT RELIES SOLELY ON TITLE COMPANY SPECIFICATIONS AS TO RECORD EASEMENTS, RESTRICTIONS, ROADWAYS, RIGHTS-OF-WAY, BUILDING LINES, ENCUMBRANCES, ETC.; CLIENT AND TITLE COMPANY HOLD TLTS, INC. HARMLESS FROM RESPONSIBILITY FOR SAME

- Restrictions as per recorded plat unless otherwise noted
- True ground distances shown
- Plat & bearings reference Plan of COG, Sandusky, 1845
- Survey monuments reconciled w/previous surveys

Scale: 1" = 20'

10 Feet 0 10 20 30

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There are three existing homes currently situated on this lot. Two homes currently front on the Avenue M ½ Street. The third home is a classic Galveston "Back Alley – Rear" home. All three homes are in derelict, unlivable condition; at risk of condemnation by the city for unsafe structures. Renovations, necessary to bring these homes into code compliance, would result in a total investment cost exceeding a $300,000 for these structures.

These homes are built closer to the ground, but near the seawall. By adjusting the minimum lot size, these homes could provide safer, more affordable homes for Galveston citizens, such as seniors, who have difficulty ambulating up staircases and who struggle, both financially and physically to maintain large lots demanded by current regulations.

We are requesting a variance of the current lot width from 40 feet to 19.5 feet. That would allow a side property line of 3.6+ feet, dimensions in excess of the currently required 3 feet. Where there is currently a cut in the concrete curb, a concrete handicap ramp would be placed and a path leading to the front of the rear building. The resulting surveyed and conveyed path property would provide Avenue M ½ street frontage for the rear home, so it would no longer be a rear alley house. As a result, potential criminal activity of an "alley only access" for the resident could be cut by providing a safer, street frontage access.

We are also requesting a variance of lot size; however, in an effort to keep lot/land area as large as possible for the two additional lots, we are also requesting a variance of the rear-house front yard lot line of 5 feet, based on current average alignment of neighborhood front lots. These rear home lot dimensions would then measure approximately 55 feet x 42.83 feet and result in the rear lot area of approximately 2575 feet. The two front houses would have lot dimensions of 65 feet x 19.5 feet with areas of approximately 1400 sq ft each. The new property lot dimensions, granted by variance, would allow the properties to meet more than current minimum set back standards on the variance sides. The homes could be individually owned, making it economically feasible to renovate the properties to current building standards and code compliance, while providing affordable and safe housing in Galveston.

Properties which are owner occupied are the best and quickest way to stabilize and/or improve neighborhoods. Granting these variances would allow for the proper renovation of homes currently so deteriorated, they would otherwise be bulldozed or half-heartedly fixed up for continued slum-lord ownership. In addition, the homes would be affordable as well as safe.

Average Alignment:

There are 10 Homes on M ½ between 13th and 14th Street. Of those existing homes, one appears to be a zero lot line. Two additional homes are at 3.8 feet; however, the porches are built to zero lot line. An additional property was built at approximately 4.6 feet. Another is at 12 feet and yet another is at 10 feet. The additional homes on the street appear to be built at approximately the current code.

14Z-38 (5623 Avenue L) Request for a variance from the Galveston Zoning Standards section 29-67 regarding off-street parking requirements in a General Residence (GR) zoning district. Property is legally described as Lot 3, Block 25, in the City and County of Galveston, Texas.
Applicant: Zach Martin, URS
Property Owner: Aurelia Garcia

Case Manager: Bryce Johnson, City Planner I

Existing Zoning and Land Use:

Zoning	General Residence (GR)
Land Use	Residential

Surrounding Zoning and Land Use:

	North	South	East	West
Zoning	General Residence (GR)	General Residence (GR)	General Residence (GR)	General Residence (GR)
Land Use	Residential	Residential	Residential	Residential

Property Owner Notification as of October 8, 2014:

Sent	Returned	In Favor	In Opposition	No Comment
40				

City Department Notifications:

Airport:	No Objection
Building Department:	No Objection
Fire Chief:	No Objection
Fire Marshall:	No Objection
Police Department:	No Objection
Public Works:	No Objection

ANALYSIS

The applicant is requesting a parking variance to require no off-street parking.

Requested Variance(s)

Parking: Required parking from one to zero.

Applicant's Justification

"The new proposed dwelling will be in compliance and fall within the setbacks if the variance is approved. Variance should not have a detrimental impact upon the current or future use of adjacent properties."

CONDITIONS FOR A VARIANCE

The Board of Adjustment may grant a variance under this Section only if the variance is not prohibited by Section 14.401.C. in Article 14, Administrative Bodies, and if the Board makes a determination in writing that all of the following are demonstrated:

1. The request for the variance is rooted in special conditions of the applicant's property that do not generally exist on other properties in the same zoning district.
2. Due to said special conditions, the literal enforcement of the strict terms of these Land Development Regulations would impose an unnecessary hardship on the applicant.
3. The variance is not contrary to the public interest, in that:
    i. It does not allow applicants to impair the application of these regulations for:
        a. Self-imposed hardships;
        b. Hardships based solely on financial considerations, convenience or inconvenience; or
        c. Conditions that are alleged to be "special," but that are actually common to many properties within the same zoning district.
    ii. The variance will not have a detrimental impact upon:
        a. The current or future use of adjacent properties for purposes for which they are zoned;
        b. Public infrastructure or services; and
        c. Public health, safety, morals and general welfare of the community.
4. The degree of variance allowed from these Land Development Regulations is the least that is necessary to grant relief from the identified unnecessary hardship.
5. The variance shall not be used to circumvent other procedures and standards of these Land Development Regulations that could be used for the same or comparable effect (*e.g.*, if alternative development patterns, alternative development standards, or other flexible measures in these regulations are available that would avoid or mitigate hardship without using a variance, then they must be used).
6. By granting the variance, the spirit of these Land Development Regulations is observed and substantial justice is done.

APPEAL FROM DECISION OF BOARD

In accordance with Section 29-112, any person aggrieved by any decision of the Board, or any officer, department or other Board of the City, may appeal the decision or action of the Board by filing a petition for the same in a court of competent jurisdiction, setting forth that such decision is illegal in whole or in part, and specifying the grounds for the alleged illegality. Such petition shall be filed with the Court within ten (10) days from the day the Board renders its decision, and not thereafter. The time period set forth herein shall be deemed jurisdictional.

ATTACHMENTS

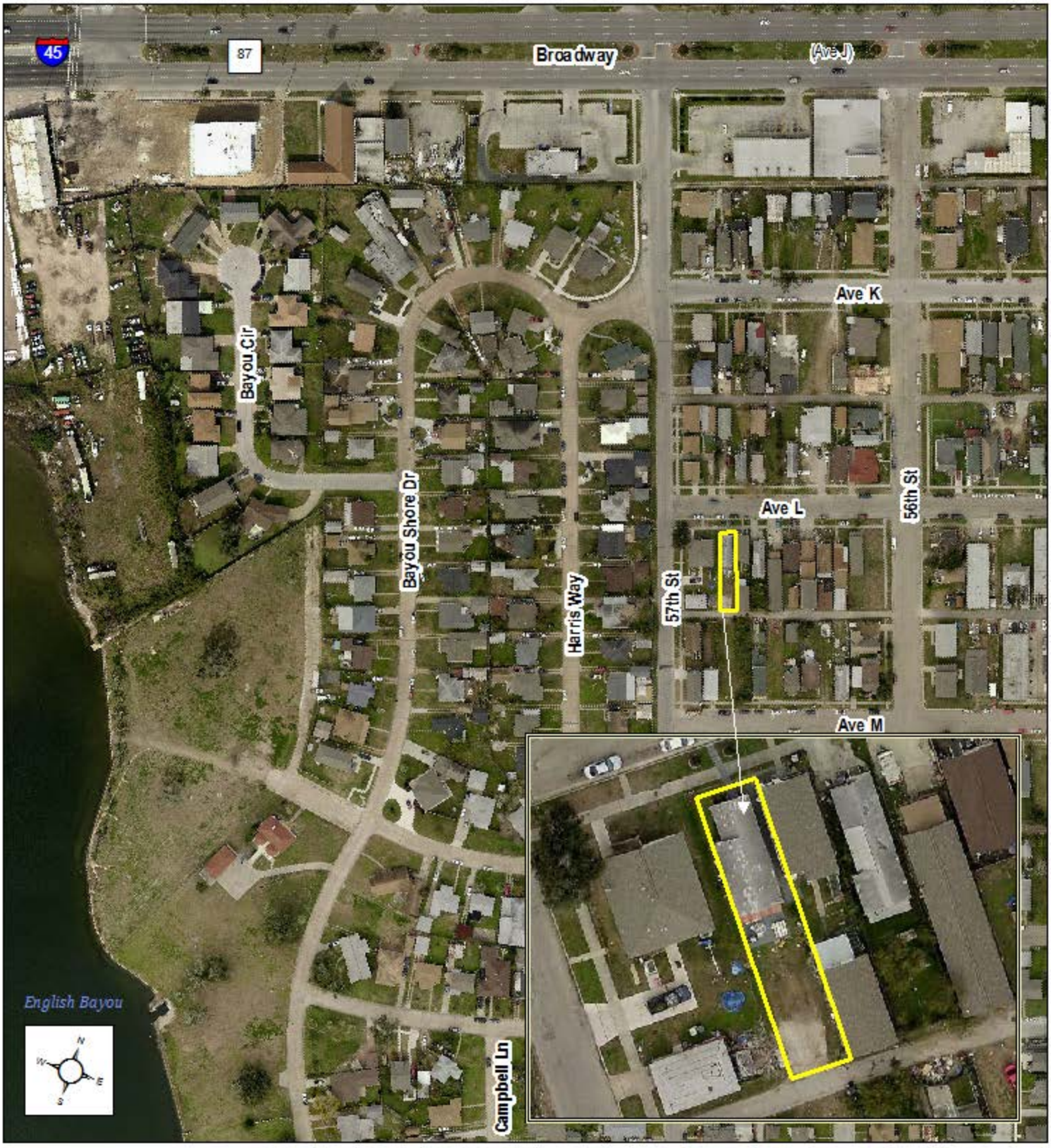
"A" – Aerial Map
"B" – Survey
"C" – Site Plan
"D" – Pictures

Planning Department

823 Rosenberg, Room 401
Galveston, Texas 77550

Phone (409) 797-3660
Fax (409) 797-3604

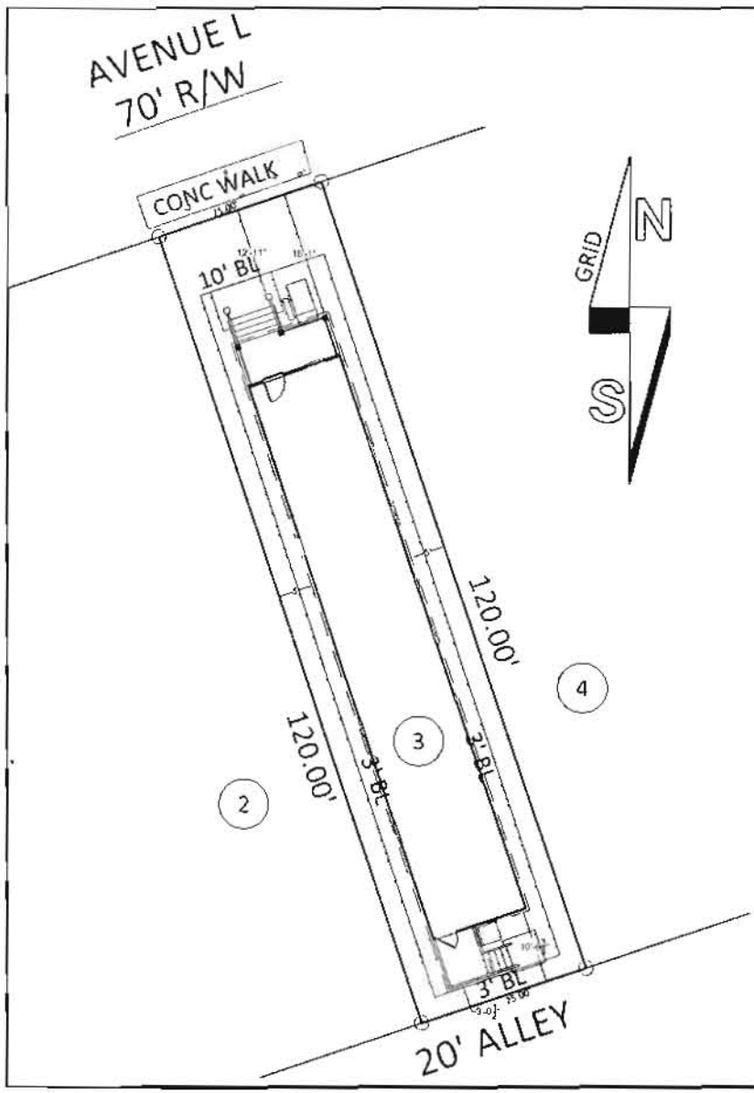
planningcounter@cityofgalveston.org



0 125 250 500 Feet

Map prepared by the City of Galveston Planning Department (johnsonbry) - 9/18/2014

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT

URS EXHIBIT PROPOSED DWELLING SITING PLAN

1 G2-S1-W14-BR2-2BATH -- 1,214 SQ FT

SCALE1/16" = 1'-0" 0' 16'

ORIGINAL SURVEY BY:

CARTER LAND SURVEYORS
AND PLANNERS
2780 Peachtree Industrial Boulevard
Duluth, GA 30097
Ph: 770.495.9793
Toll Free: 866.637.1048
www.carterland.com
Atlanta • Charlotte • Houston • Dallas
Galveston • Beaumont

URS

APPLICATION NUMBER: CG2011-52
5623 AVENUE L GALVESTON, TX 77551
DISASTER RECOVERY HOUSING
GALVESTON, TEXAS 77553

DATE | ISSUED FOR

CREATED: 8/4/14
PROJECT #
19230273

GENERAL NOTES

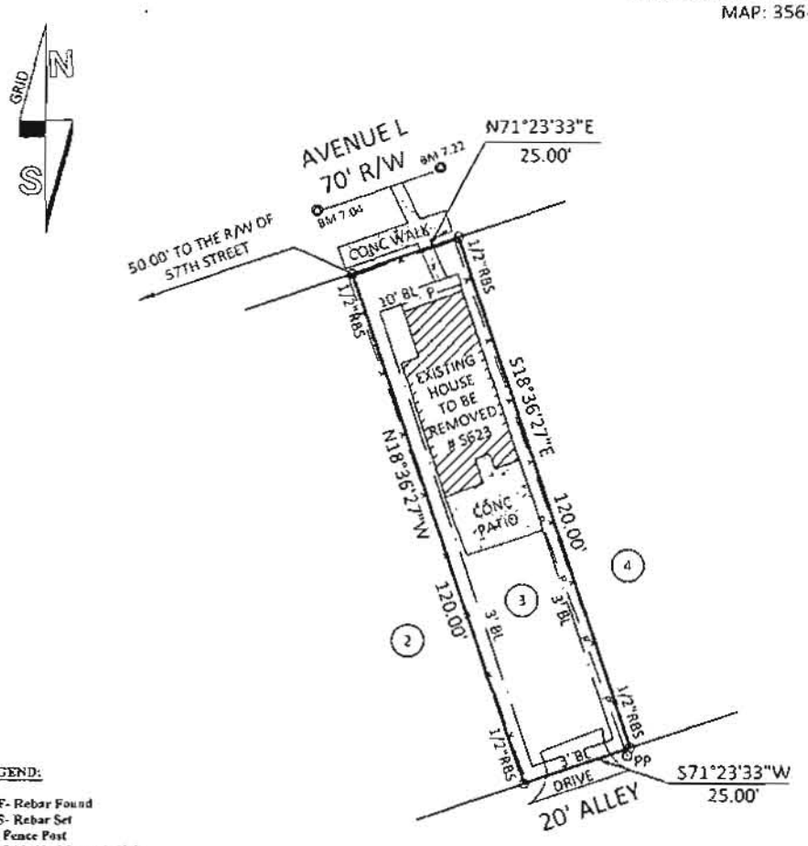
1. THIS PROPERTY IS SUBJECT TO ADDITIONAL EASEMENTS OR RESTRICTIONS OF RECORD.
2. THIS PLAT IS FOR EXCLUSIVE USE BY CLIENT. USE BY THIRD PARTIES IS AT THEIR OWN RISK.
3. DIMENSIONS FROM HOUSE TO PROPERTY LINES SHOULD NOT BE USED TO ESTABLISH FENCES
4. THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 10,000 FEET.
5. THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 10,000 FEET AND AN ANGULAR ERROR OF 7 SECONDS PER ANGLE POINT AND WAS ADJUSTED USING THE COMPASS RULE.
6. EQUIPMENT USED: TOPCON APL1 TOTAL ROBOTIC STATION

SCALE: 1" = 30'

30' 15' 0' 30'

GRAPHIC SCALE – FEET

AREA: 3,000 SF ~ 0.07 ACRES
DEED INSTRUMENT: 2006087088
MAP: 356-D



LEGEND:

RBF- Rebar Found
RBS- Rebar Set
FP- Fence Post
MAG NAIL- Magnetic Nail
OTF- Open Top Pipe Found
CTF- Crimp Top Pipe Found
R/W- Right of Way
BL-Building Line
DE- Drainage Easement
SSE- Sanitary Sewer Easement
UE- Utility Easement
-P- Power Line
-X- Fence
-D- Drainage Easement
-S- Sewer Easement
BM- Benchmark
AC- Air Conditioning Unit
CB- Catch Basin
CO- Sanitary Sewer Cleanout
PP- Power Pole
WM- Water Meter
CONC- Concrete
DK- Deck
PAT- Patio
POR- Porch
S- Stoop
BM- Benchmark

NOTE: WATER METER NOT VISIBLE

FRONT BL: 10' OR AVG ALIGNMENT

OWNER. AURELIA GARCIA (APP. #CG201152)
ADDRESS: 5623 AVENUE L
GOVERNING AUTHORITY: CITY OF GALVESTON
ZONING DISTRICT: GR
FEMA MAP #: 48167C 0437 G
FEMA FLOOD ZONE: AE
BASE FLOOD ELEVATION: 11'

IN MY OPINION, THIS PLAT IS A CORRECT REPRESENTATION OF THE LAND PLATTED AND HAS BEEN PREPARED WITHIN THE MINIMUM STANDARDS AND REQUIREMENTS OF LAW.

SURVEY FOR:
URS CORPORATION

SUBDIVISION: DENVER RESURVEY
LOT: 3 BLOCK: 25
CITY OF GALVESTON
GALVESTON COUNTY, TEXAS
FIELD WORK DATE: 05/22/2014

2014050882 URS

CARTER LAND SURVEYORS
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Atlanta • Charlotte • Houston • Dallas
Galveston • Beaumont

STATE OF TEXAS
REGISTERED
DAVID A. BAGGETT
6226
PROFESSIONAL
LAND SURVEYOR

5-29-14