

AGENDA

CITY OF PEARLAND PLANNING & ZONING COMMISSION

DECEMBER 6, 2010

6:00 p.m.

Jerry Koza, Jr.
P&Z CHAIRPERSON

Vacant
P&Z VICE-CHAIRPERSON

COMMISSIONERS

Neil West

Susan Sherrouse



Darrell Diggs

Richard Golden

Henry Fuyertes

In accordance with the Texas Open Meeting Act the Agenda is posted for public information, at all times, for at least 72 hours preceding the scheduled time of the meeting on the bulletin board located at the front entrance of the City Hall, 3519 Liberty Drive.

AGENDA – REGULAR MEETING OF THE PLANNING AND ZONING COMMISSION OF THE CITY OF PEARLAND, TEXAS, TO BE HELD DECEMBER 6, 2010 AT 6:00 P.M., IN THE 2ND FLOOR CONFERENCE ROOM, CITY HALL, 3519 LIBERTY DRIVE, PEARLAND, TEXAS

I CALL TO ORDER

II. APPROVAL OF MINUTES Regular Meeting of November 15, 2010

III OLD BUSINESS

A. CONSIDERATION & POSSIBLE ACTION – Conditional Use Permit No. CUP 2010-08

A request of CenterPoint Energy, applicant and owner, for approval of a Conditional Use Permit for an Automated Meter Systems tower on the following described property:

Legal Description: Approximately 1.995 acres out of the T.J. Green Survey, Abstract No. 198, recorded in Vol.96, Pg. 91 of the Brazoria County Deed Records, City of Pearland, Brazoria County, Texas

General Location: 2617 Broadway St. Pearland, Texas

IV NEW BUSINESS

A. ELECTION OF OFFICER – Planning & Zoning Commission Vice-Chairperson

B. DISCUSSION ITEMS:

- | | |
|----------------------------------|------------------|
| 1. Commissioners Activity Report | |
| 2. 2011 Meeting Schedules | |
| 3. Annexation Open House | December 9, 2010 |
| 4. P&Z Meeting Procedures | |
| 5. P&Z Strategic Plan | |
| 6. Next P&Z Regular Meeting | January 3, 2011 |
| 7. Next JPH Meeting | January 17, 2011 |

IV. ADJOURNMENT

This site is accessible to disabled individuals. For special assistance, please call Young Lorfing, City Secretary, at 281-652-1655 prior to the meeting so that appropriate arrangements can be made.

I, Judy Krajca, Office Coordinator of the City of Pearland, Texas, do hereby certify that the foregoing agenda was posted in a place convenient to the general public at City Hall on the 2nd day of December 2010 A.D., at 5:30 p.m.

Judy Krajca, Planning Office Coordinator

Agenda removed _____ day of December 2010 A.D.

APPROVAL

OF

MINUTES

MINUTES OF THE REGULAR MEETING OF THE PLANNING AND ZONING COMMISSION OF THE CITY OF PEARLAND, TEXAS, HELD NOVEMBER 15, 2010 AT 6:30 P.M., IN THE 2ND FLOOR CONFERENCE ROOM, CITY HALL, 3519 LIBERTY DRIVE, PEARLAND, TEXAS

CALL TO ORDER

P&Z Chairperson Jerry Koza, Jr. called the regular meeting to order at 8:28 p.m. with the following present:

P&Z Chairperson Jerry Koza, Jr.
P&Z Commissioner Richard Golden
P&Z Commissioner Henry Fuentes
P&Z Commissioner Darrell Diggs
P&Z Commissioner Neil West (arrived at 8:31 p.m.)

APPROVAL OF MINUTES

P&Z Commissioner Richard Golden made the motion to approve the minutes of Regular Meeting of November 1, 2010, and P&Z Commissioner Henry Fuentes seconded.

The vote was 4-0. The minutes of the Regular Meeting of November 1, 2010 were approved.

NEW BUSINESS

CONSIDERATION & POSSIBLE ACTION – CONDITIONAL USE PERMIT NO. CUP 2010-10

A request of Jon Quintero, applicant for Gilbert Allison, owner, for approval of a Conditional use Permit (CUP) to allow a Hardware Store in the Cullen Mixed Use (C-MU) zone, on the following described property, to wit:

Legal Description: Approximately 4.9990 Acre Tract of Land being the north one-half of lot 3 of the Allison Richey Gulf Coast Home company Suburb Gardens Subdivision of Section 19, H.T. & B.R.R. Co. Survey, Abstract 243, Brazoria County, Texas, According to the map or plat thereof recorded in Volume 2, Pages 23-24, Plat Records, Brazoria county, Texas

General Location: 1855 Cullen Blvd., Pearland Texas

P&Z Commissioner Darrell Diggs made the motion to approve, and P&Z Commissioner Henry Fuentes seconded.

The vote was 5-0. Conditional Use Permit No. CUP 2010-10 was approved.

CONSIDERATION & POSSIBLE ACTION – ZONE CHANGE APPLICATION NO. 2010-08Z

A request of The City of Pearland, applicant and owner, for approval of a zone change from the Single Family Residential (R-1) zone, to Office Professional (OP) zone on the following described property, to wit

Legal Description: 0.4218 acre, being out of Lot 29 of Walcott’s Pearland Subdivision, according to the map or plat recorded in Volume 35, Pages 241 and 242 of the Brazoria County Deed Records. Said 0.4218 acre tract also being part of a certain called 74.986 acre tract recorded in Brazoria County Clerk’s file number 94-040206

General Location: Southwest corner of McHard and Pearland Pkwy
Pearland, Texas

P&Z Commissioner Henry Fuertes asked why this was being rezoned. Senior Planner Harold Ellis explained how the adjoining property, not owned by the City, was rezoned to Office Professional (OP) this past summer. This remaining piece, owned by the city, should have been rezoned at that time.

P&Z Commissioner Darrell Diggs made the motion to approve, and P&Z Commissioner Richard Golden seconded.

The vote was 5-0. Zone Change No. 2010-08Z was approved.

CONDUCT PUBLIC HEARING –PARTIAL REPLAT OF HOME DEPOT, U.S.A. SUBDIVISION

Request of HD Development Properties, L.P, applicant/owner, for approval of a Partial Replat of Home Depot, U.S.A. Subdivision, located east of Dixie Farm Road on Broadway (F.M. 518), on the following property:

0.93 acres of land out of Reserve “A”, Block 1 of Home Depot, U.S.A. Subdivision, City of Pearland, Brazoria County Texas

P&Z Chairperson Jerry Koza, Jr. opened the public hearing for the partial replat of Home Depot, U.S.A. Subdivision at 8:34 p.m.

Planner II Evan DuVall read the staff report, stating there were 5 outstanding items:

1. Mylar copy signed by owner for recordation
2. Updated Title Report
3. 2010 Tax Certificates
4. CAD CD of Plat
5. Recordation Fees (When owner signed Mylar is submitted).

Clay Trozzo, applicant for Home Depot was present, but did not speak.

There was no one present to speak for or against the Partial Replat of Home Depot. U.S.A. Subdivision.

There was minimal discussion among the Commission/Staff.

P&Z Chairperson Jerry Koza, Jr. adjourned the public hearing for Partial Replat of Home Depot. U.S.A. Subdivision at 8:41 p.m.

CONSIDERATION & POSSIBLE ACTION – PARTIAL REPLAT OF HOME DEPOT, U.S.A. SUBDIVISION

Request of HD Development Properties, L.P, applicant/owner, for approval of a Partial Replat of Home Depot, U.S.A. Subdivision, located east of Dixie Farm Road on Broadway (F.M. 518), on the following property:

0.93 acres of land out of Reserve “A”, Block 1 of Home Depot, U.S.A. Subdivision, City of Pearland, Brazoria County Texas.

P&Z Commissioner Darrell Diggs made the motion to approve with staff’s comments, and P&Z Commissioner Henry Fuentes seconded.

The vote was 5-0. Partial Replat of Home Depot. U.S.A. Subdivision was approved with staff’s comments.

1. Mylar copy signed by owner for recordation
2. Updated Title Report
3. 2010 Tax Certificates
4. CAD CD of Plat
5. Recordation Fees (When owner signed Mylar is submitted).

CONSIDERATION & POSSIBLE ACTION – CONDITIONAL USE PERMIT NO. CUP 2010-08

A request of CenterPoint Energy, applicant and owner, for approval of a Conditional Use Permit for an Automated Meter Systems Tower on the following described property:

Legal Description: Approximately 1.995 acres out of the T.J. Green Survey, Abstract No. 198, recorded in Vol. 961, Pg. 91 of the Brazoria County Deed Records, City of Pearland, Brazoria County, Texas

General Location: 2617 Broadway St. Pearland, Texas

Staff reported the applicant had not resubmitted the necessary items, and is asking for the Conditional Use Permit to be postponed until items can be submitted.

P&Z Commissioner Henry Fuertes made the motion to postpone, and P&Z Commissioner Richard Golden seconded.

The vote was 5-0. Conditional Use Permit No. CUP 2010-08 was postponed.

DISCUSSION ITEMS

P&Z Chairperson Jerry Koza, Jr. stated that Ron Capehart is no longer a P&Z Commissioner. An Election of Officer will be placed on the December 6, 2010 agenda.

Planning Director Lata Krishnarao asked for input with regards to the P&Z Strategic Plan. The Brownfield Development was discussed and revised, and the development of an Airport Zoning Plan was removed. Other items were discussed, prioritized and revised.

Planning Director Lata Krishnarao presented her PowerPoint presentation that she presented at the H-GAC Fall Planning Workshop on density issues.

There was brief discussion with regards to the upcoming Annexation of Area 5, and the Spectrum Workshop scheduled for November 22, 2010, and the Capital Improvement Update scheduled for December 6, 2010.

ADJOURNMENT

P&Z Chairperson Jerry Koza, Jr. adjourned the meeting at 9:58 p.m.

These minutes are respectfully submitted by:

Judy Krajca, Planning Office Coordinator

Minutes approved as submitted and/or corrected on this 6th day of December 2010, A.D.

P&Z Chairperson Jerry Koza, Jr.

OLD BUSINESS

P&Z Agenda Item

A

Item A

**Applicant has not addressed
P&Z or Staff comments.**

**They have indicated they
need more time.**

JOINT PUBLIC HEARING AGENDA ITEM MEETING OF OCTOBER 18, 2010

Conditional Use Permit No. CUP 2010-08

A request of CenterPoint Energy, applicant and owner, for approval of a Conditional Use Permit for an Automated Meter Systems Tower on the following described property:

Legal Description: Approximately 1.995 acres out of the T.J. Green Survey, Abstract No. 198, recorded in Vol. 961, Pg. 91 of the Brazoria County Deed Records, City of Pearland, Brazoria County, Texas

General Location: 2617 Broadway St. Pearland, Texas.

APPROVAL PROCESS: After this Joint Public Hearing, the requested conditional use permit application will be considered as follows:

Planning and Zoning Commission: October 18, 2010*
City Council for First and Only Reading: October 25, 2010*

(*dates subject to change if item is tabled)

SUMMARY: The Applicant is proposing a 150 foot tall Automated Meter System (AMS) tower located within an existing electrical substation. The property is zoned General Business (GB) and the proposed use is permitted with an approved conditional use permit.

The proposed tower will reach a maximum height of one hundred fifty feet (150'). The applicant has stated that the proposed tower will be either a monopole or lattice tower.

The existing Electrical Substation has access from Broadway and has minimal landscaping along the street frontage.

The applicant is seeking a Conditional Use Permit to allow the construction of the proposed tower within the electrical substation. CenterPoint currently owns the property where the substation is located and would like to locate the proposed tower on site considering the

use is directly related to electrical service. No other towers in the direct vicinity are available for use.

As of the date of this report, the applicant has not provided staff with the following:

(1) An inventory of the applicant's existing towers that are either within the City or within one mile of the corporate limits, specifying the location, height, and design of each tower. The Planning Department may share the information with other applicants for a conditional use permit under this article.

(2) Site plans to scale specifying the location of tower(s), transmission building and other accessory uses, street access, parking, fences, landscaped areas, and adjacent land uses.

(3) Each applicant must make a good faith effort to substantially demonstrate that no existing towers could accommodate the applicant's proposed antenna

(4) A letter of intent to lease excess space on the tower and to lease additional excess land on the tower site when the shared use potential of the tower is absorbed, if structurally and technically possible.

The site plan and vicinity map provided is not for this specific tower and does not accurately show all ground equipment that will be added on site. The report state that a ten foot (10') twelve foot (12') shelter will be added to the site but is not shown on the site plan.

The most recent newly constructed tower was approved at 2320 Hatfield (Knights of Columbus) in September of 2008. It was approved with the following conditions:

1. The facility be fully enclosed in a masonry building or by brick walls, tall enough to obscure the equipment, transformer, and bridge, with landscaping around, to be compatible with the character of the general area.
2. A paved road be provided to access the facility.
3. Stealth technique: specifically a flag pole or single mono pole, with no exterior mounts, be considered to ensure that the facility is compatible to the area.
4. A detailed site plan showing the type and amount of landscaping, type and height of fencing, setbacks of the proposed tower and leased area from the property boundaries, and paving of the access road be provided.
5. A 20 foot wide landscaped buffer with trees, at least 6' at planting and up to a minimum of 20' tall at full growth, be provided in the north west area of the

subject property abutting residential uses, to provide visual screening, and seek input from staff and neighbors approval.

SURROUNDING ZONING AND LAND USES:

	<u>Zoning</u>	<u>Land Use</u>
North	Province Village (PD)	Vacant
South	General Business (GB)	Commercial Strip Center
East	General Business (GB)	Episcopal Church
West	Province Village (PD)	Commercial Strip Center

CONFORMANCE TO THE UNIFIED DEVELOPMENT CODE (UDC): The subject property is currently zoned General Business (GB). The minimum lot size for the GB zoning district is 22,500 square feet, the minimum lot width is 150 feet, and the minimum lot depth is 125 feet. The subject property exceeds these minimum requirements, as the property is approximately 2 acres in size, 246 in width, and 368 in depth. The subject property is in conformance with the current Unified Development Code. The proposed use is permitted with an approved conditional use permit.

PLATTING STATUS: The subject property is not currently platted. No permits will be released until a plat has been approved and recorded.

CONFORMANCE TO THE COMPREHENSIVE PLAN: The Comprehensive Plan recommends “General Business” for the subject property and the surrounding properties to the north, east, south and west. The Comprehensive Plan further indicates that the appropriate zoning districts are “Neighborhood Service (NS), General Business (GB), and Office Professional (OP).” The current GB Zoning District conforms to the current Comprehensive Plan.

CONFORMANCE TO THE THOROUGHFARE PLAN: The subject property has frontage on Broadway, a major thoroughfare with a width of 120 feet. The street is planned to be widened in the future. The subject property is in conformance to the current thoroughfare plan.

AVAILABILITY OF UTILITIES: The subject parcel is served by public water and sewer lines.

IMPACT ON EXISTING AND FUTURE DEVELOPMENT: The proposed site is already home to an existing substation electrical substation. The proposed tower would be built

on the same site. The subject property is surrounded by commercial development.

The current site has driveway access off of Broadway. The addition of a new tower will not drastically increase traffic to the site. No additional driveways will be added on Broadway.

The applicant will be required to comply with all other requirements of the Unified Development Code including screening, landscaping, and access.

The proposed addition of an AMS tower at this site will not have a negative impact on the surrounding area.

ADDITIONAL COMMENTS: There are no additional comments from other departments.

SITE PLAN CONSIDERATIONS: A proposed site plan was submitted with the conditional use permit. The vicinity map shows an inaccurate location for this tower. The site plan does not have adequate information for staff to review conformance with the requirements of the UDC. All requirements need to be met at the time of permit approval.

PUBLIC NOTIFICATION: Public notice/comment forms were mailed to property owners within 200 feet of the subject property under consideration. A legal notice of public hearing was published in the local newspaper, and a Zoning Sign was placed on the subject property.

OPPOSITION TO OR SUPPORT OF PROPOSED REQUEST: Staff has not received any comments either in opposition to or in support of the proposed zone change request.

STAFF RECOMMENDATION: Staff recommends approval of the Conditional Use Permit No. 2010-08 as proposed by the applicant and owner with the conditions listed below, for the following reasons:

1. The proposed use should not have any significant negative impact on the surrounding properties and developments.
2. The proposed use would be conforming to the comprehensive plan with an approved conditional use permit.
3. The proposed use would be conforming to the current Unified Development Code with an approved conditional use permit. The subject property is in conformance with the current Unified Development Code.
4. The proposed use is in line with the existing uses located near subject property due

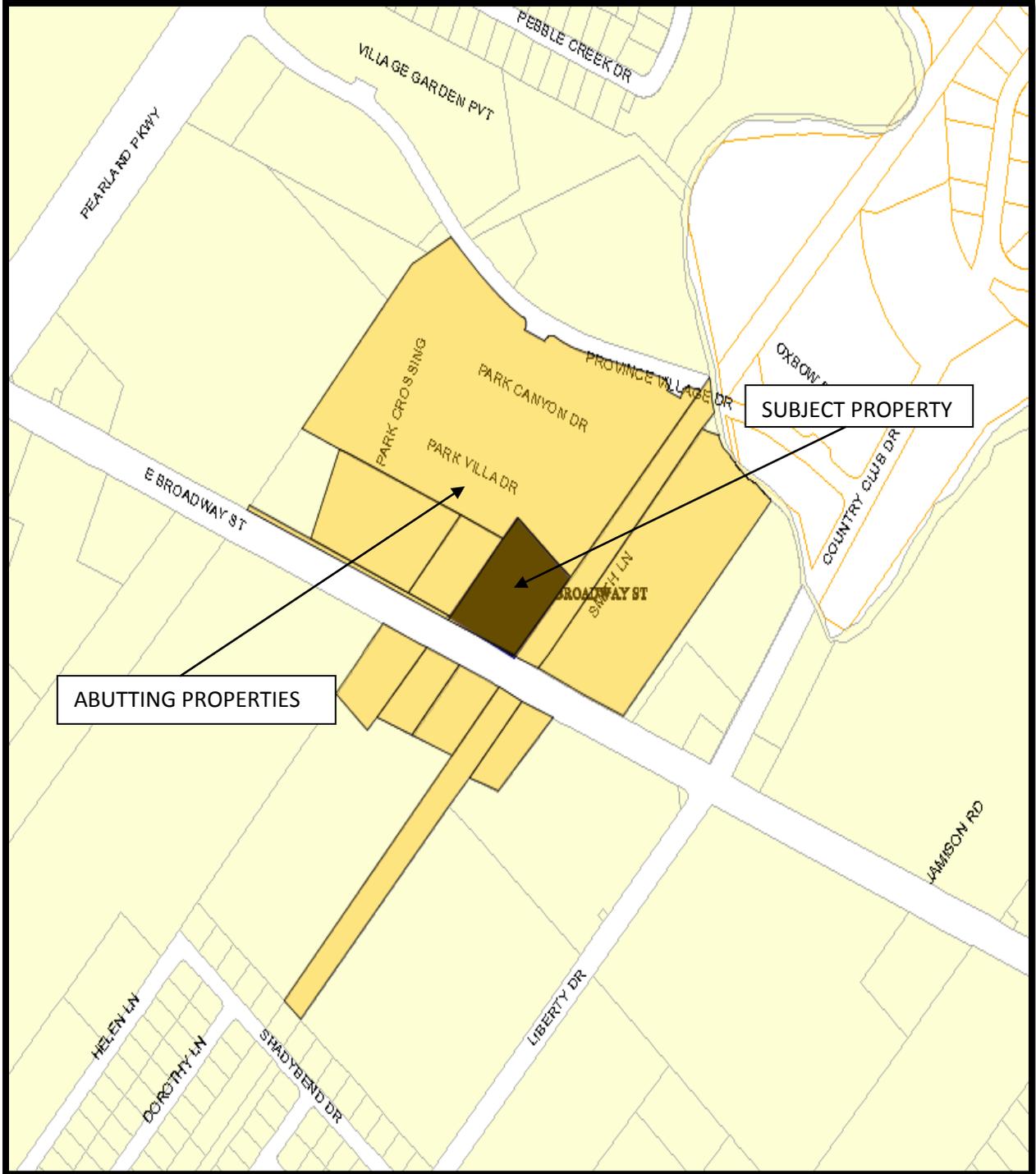
to the commercial nature of Broadway and due to the existing substation.

Conditions to be considered:

1. Stealth technique: specifically a single mono pole, with no exterior mounts, be considered to ensure that the facility does not add visual clutter above what exists now.
2. A detailed site plan showing the type and amount of landscaping, type and height of fencing, setbacks of the proposed tower and leased area from the property boundaries, and paving of the access road be provided. Landscaping will help in screening some of the existing equipment from Broadway that is a Corridor Overlay District.
3. Complete information to be provided for review, as per the UDC.
 - a. An inventory of the applicant's existing towers that are either within the City or within one mile of the corporate limits, specifying the location, height, and design of each tower. The Planning Department may share the information with other applicants for a conditional use permit under this article.
 - b. Site plans to scale specifying the location of tower(s), transmission building and other accessory uses, street access, parking, fences, landscaped areas, and adjacent land uses.
 - c. Each applicant must make a good faith effort to substantially demonstrate that no existing towers could accommodate the applicant's proposed antenna.
 - d. A letter of intent to lease excess space on the tower and to lease additional excess land on the tower site when the shared use potential of the tower is absorbed, if structurally and technically possible.

SUPPORTING DOCUMENTS:

- Zone Change Application
- Vicinity Map
- Property Ownership Map
- Property Owner Notification List
- Zoning Map
- Future Land Use Plan
- Aerial Photograph
- Other Maps and Related Documents

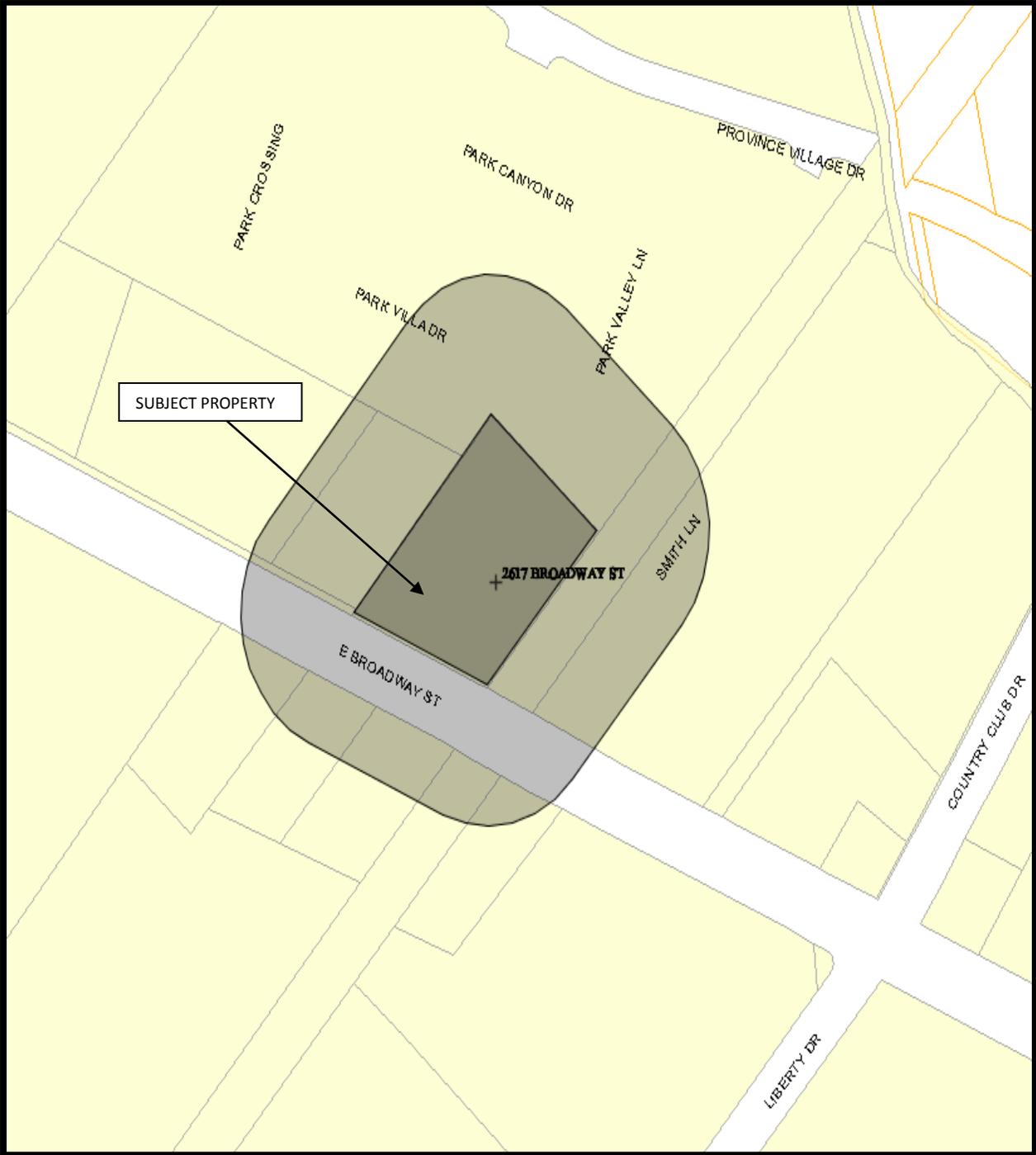


VICINITY MAP

CONDITIONAL USE PERMIT CUP 2010-08
2617 BROADWAY ST.



NORTH



ABUTTER MAP

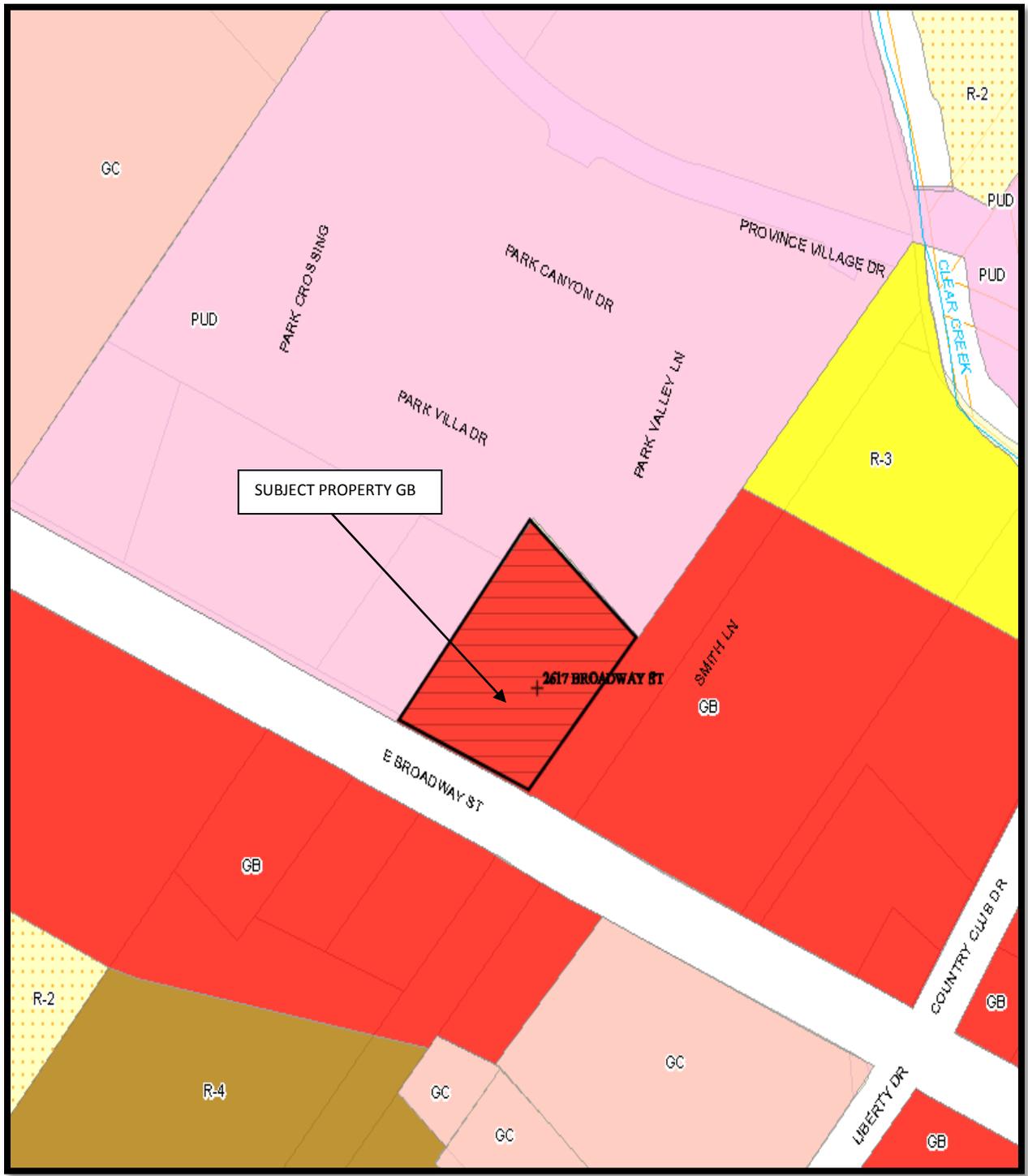
CONDITIONAL USE PERMIT CUP 2010-08
2617 BROADWAY ST.



CUP 2010-08

Communications Tower 2617 Broadway

Owner	Address	City	State	Zip
E BROADWAY PLAZA LP	2640 E. BROADWAY, SUITE 109	PEARLAND	TX	77581
HARTSOOK DAVID L	PO BOX 1890	PEARLAND	TX	77588
CLAWS & PAWS VETERINARY HOSPITAL PC	2556 BROADWAY ST	PEARLAND	TX	77581
JWP INC	2610 BROADWAY ST	PEARLAND	TX	77581
CENTERPOINT ENERGY INC	PO BOX 1475	HOUSTON	TX	77251
TEXPROJ2008 LLC	3049 S SHERWOOD BLVD SUITE 300	BATON ROUGE	LA	70816
PROTESTANT EPISCOPAL CHUR	8200 BROOKRIVER DR	DALLAS	TX	75247

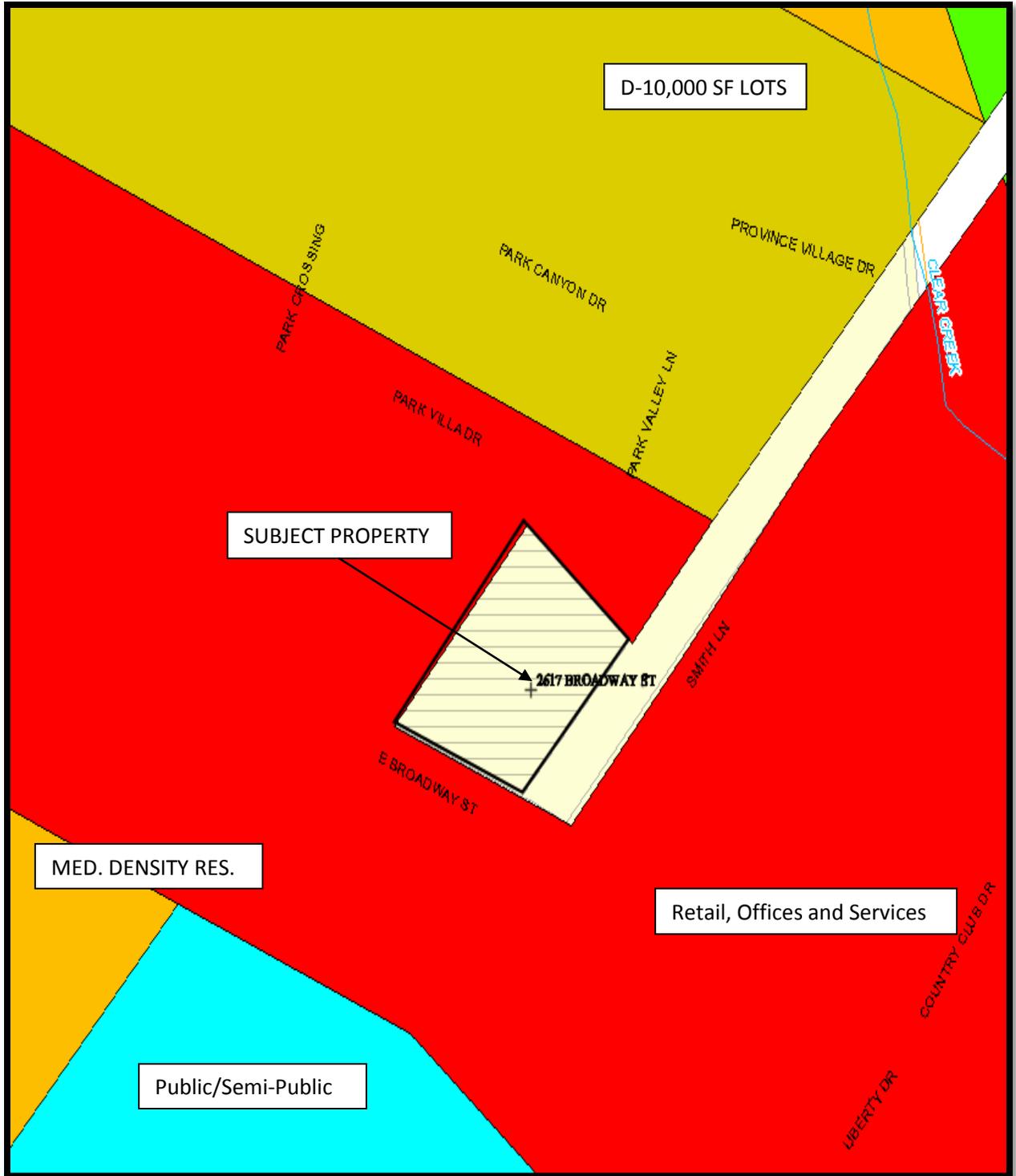


ZONING MAP

CONDITIONAL USE PERMIT CUP 2010-08
2617 BROADWAY ST.



NORTH



FUTURE LAND USE MAP

CONDITIONAL USE PERMIT CUP 2010-08
2617 BROADWAY ST.

↑
NORTH



AERIAL



CONDITIONAL USE PERMIT CUP 2010-08
2617 BROADWAY ST.

NORTH

Tim Dumah 832-319-0113

CUP APPLICATION Page 1 of 4 (Updated April 2010)
City of Pearland
Community Development
3523 Liberty Drive
(Community Center)
Pearland, Texas 77581
281-652-1768
281-652-1702 fax
www.cityofpearland.com



APPLICATION FOR A CONDITIONAL USE PERMIT (CUP)

Conditional Use Permit Request for: a new tower for digital meters
(list proposed use from the Table of Uses of the UDC)

Current Zoning District: (GB) General Business

Property Information:

Address or General Location of Property: 2617 EAST BROADWAY
PEARLAND, TX 77581 (MARY'S CREEK)

Tax Account No. 0504-0070-150

Subdivision: _____ Lot: _____ Block: _____

A complete application must include all information shown on the Application Checklist attached to this application.

PROPERTY OWNER INFORMATION:

APPLICANT/AGENT INFORMATION:

NAME CENTERPOINT ENERGY
ADDRESS 1111 LOUISIANA STREET
CITY HOUSTON STATE TX ZIP 77002
PHONE (832) 319-0113
FAX (713) 207 6407
E-MAIL ADDRESS Tim.dumah@centerpointenergy.com

NAME _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____
PHONE(_____) _____
FAX(_____) _____
E-MAIL ADDRESS _____

*Property owner must be the current owner of the property at the time of submittal of the application, and not the party that has the property under contract.

As owner and applicant, I hereby request approval of the above described request as provided for by the Unified Development Code of the City of Pearland.

Owner's Signature: [Signature] Date: 05/14/2010

Agent's/
Applicant's Signature: _____ Date: _____

OFFICE USE ONLY:

FEES PAID: \$250.00 DATE PAID: 9/24/10 RECEIVED BY: IC RECEIPT NUMBER: 318306

Application No. 2010-08



Re: Letter of Intent

9/ 16 /2010

This letter is intended to set forth a letter of intent by Center Point Energy, a Texas Corporation.

1. Overall Structure: Our goal is to construct and erect a communications tower in our Mary's Creek substation located at; 2617 East Broadway Street Pearland, TX 77581, to support our Automated Meter System (AMS) project. Our initial belief as to the overall structure and purpose of the venture is set forth in the attached Site documentations in the application package.

2. Proposed: The proposed structure will be either a monopole or lattice tower at a maximum height of 150 Feet to support the antenna systems for the AMS equipment. This tower site will include a 10' x 12' (120 sq ft) shelter to house the electronic equipment and cablings.

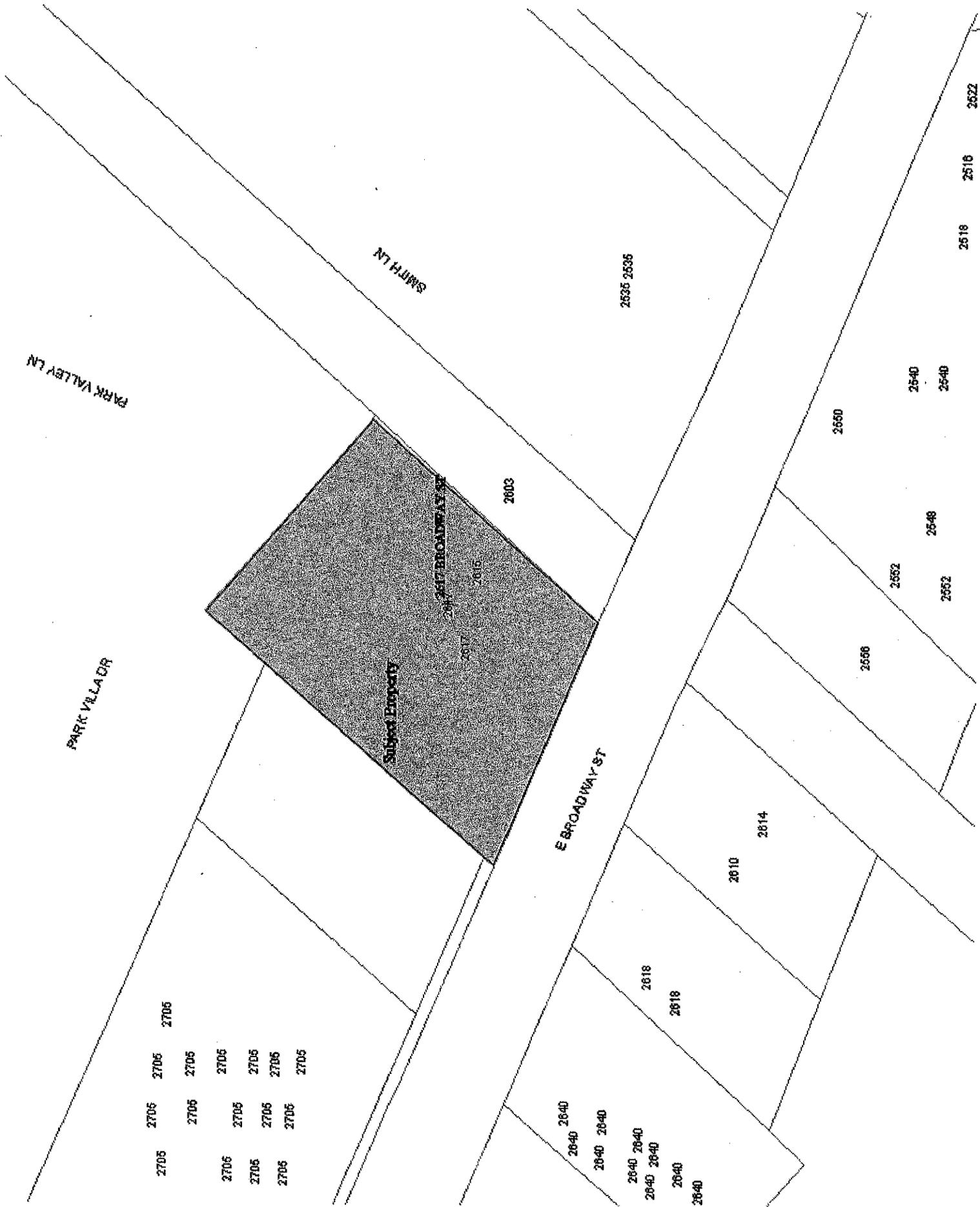
Overview

CenterPoint Houston is the electric transmission and distribution utility serving the Houston metropolitan area.

In December 2008, CenterPoint Houston received approval from the Public Utility Commission of Texas ("Commission") to deploy more than 2 million advanced meters across its electric service territory in and around Houston, including Katy. The deployment of this advanced metering system ("AMS") is scheduled for completion in mid-2012.

AMS meters can give electric consumers greater insight into their energy usage and help them make smarter energy choices. CenterPoint Houston will also have greater insight into the status of its electric grid, with an improved ability to pinpoint outages and monitor electric equipment load.

Digital AMS meters send electric usage information between CenterPoint Houston and consumer locations via two-way wireless communications. Consumers with AMS meters can track their electricity usage online at www.SmartMeterTexas.com or, in the near future, through in-home monitors, to make more informed energy choices. AMS meters can be read by CenterPoint Houston remotely and will automatically notify the Company of power outages.



PARK VALLEY LN

PARK VILLAGE DR

SMITH LN

E BROADWAY ST

E BROADWAY ST

2705	2706	2706	2706
			2705
2706	2706	2706	
2705	2705	2705	
2705	2705	2705	

Subject Property

2603

2635 2636

2615

2617

2650

2640

2640

2622

2616

2618

2648

2652

2652

2656

2610

2614

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2640

OFFICIAL TAX RECEIPT

ROVIN GARRETT, RTA
BRAZORIA COUNTY TAX ASSESSOR - COLLECTOR
111 E. LOCUST
ANGLETON, TEXAS 77515
Account No: 0198-0015-000
Certified Owner: CENTERPOINT ENERGY INC
2009 VALUE: 1,157,020

FIRST CLASS
U.S POSTAGE PAID
PERMIT NO. 4
ANGLETON TX

A0198 T J GREEN (PEARLAND), TRACT 6G-E
6I, MARYS CREEK SUBSTATION, ACRES 4.0

Jr	Year	Levy Paid	P&I	Parcel Address: BROADWAY
1	2009	4,238.00	0.00	Legal Acres: 4.0010
9	2009	694.21	0.00	Appr No: 164177
28	2009	16,422.74	0.00	Deposit No: 10CENTERPE
54	2009	1,664.32	0.00	Paid Date: 01/29/2010
96	2009	7,550.71	0.00	Total Paid: \$30,569.98
				Check No: 1192507
				Exemption(s): NONE

CENTERPOINT ENERGY
PO BOX 1700
HOUSTON, TX 77251-170

OFFICIAL TAX RECEIPT

ROVIN GARRETT, RTA
BRAZORIA COUNTY TAX ASSESSOR - COLLECTOR
111 E. LOCUST
ANGLETON, TEXAS 77515
Account No: 0504-0070-150
Certified Owner: CENTERPOINT ENERGY INC
2009 VALUE: 571,800

FIRST CLASS
U.S POSTAGE PAID
PERMIT NO. 4
ANGLETON TX

A0504 H T & B R R, TRACT 46C, ACRES 2.36
4, PEARLAND

Jr	Year	Levy Paid	P&I	Parcel Address: 6629 BROADWAY
1	2009	2,094.42	0.00	Legal Acres: 2.3640
9	2009	343.08	0.00	Appr No: 175757
28	2009	8,116.13	0.00	Deposit No: 10CENTERPE
54	2009	822.51	0.00	Paid Date: 01/29/2010
96	2009	3,731.57	0.00	Total Paid: \$15,107.71
				Check No: 1192507
				Exemption(s): NONE

CENTERPOINT ENERGY
PO BOX 1700
HOUSTON, TX 77251-170

D E E D
VOL 1147 PAGE 19

1492

THE STATE OF TEXAS ↓
COUNTY OF BRAZORIA ↓

KNOW ALL MEN BY THESE PRESENTS:

THAT We, Gladys N. Dissen, W. J. Dissen, Jr. and John Stuart Dissen, of Harris County, Texas, for and in consideration of the sum of TEN DOLLARS (\$10.00) CASH to us in hand paid by Houston Lighting & Power Company, and other good and valuable considerations, the receipt of which is hereby acknowledged, have GRANTED, SOLD and CONVEYED, and by these presents do GRANT, SELL and CONVEY unto the said Houston Lighting & Power Company, a Texas corporation domiciled in Houston, Harris County, Texas, three (3) tracts or parcels of land aggregating four and one thousandth (4.001) acres of land out of a 136.96 acre tract of land in the T. J. Green Survey, Abstract No. 198, in Brazoria County, Texas, and being part of the property owned by Gladys N. Dissen et al and described in instrument dated January 1, 1967, recorded in Volume 961, Page 91 of the Brazoria County Deed Records, said 3 tracts or parcels of land being described by metes and bounds as follows, all coordinates and bearings being referred to the Texas Plane Coordinate System South Central Zone as established by the U. S. Coast and Geodetic Survey in 1934 and based on the position of U. S. C. and G. S. triangulation station "Pearland R M 3 - 1952": X = 3,181,106.70; Y = 645,457.72:

TRACT 1:

BEGINNING at a point having coordinate X = 3,189,778.7; Y = 644,406.7, said point being in the southwesterly line of said 136.96 acre tract of land and the northeasterly line of F. M. Highway No. 518, said point also being located N. 66° 49' 20" W. 84.11 feet from the most southerly corner of said 136.96 acre tract of land, said corner also being in the southerly line of the T. J. Green Survey, Abstract No. 198, and the northerly line of the W. D. C. Hall Survey, Abstract No. 70, said point also being in the most westerly corner of the Albert Smith et ux 11.45 acre tract of land as described in instrument recorded in Volume 384, Page 541 of the Brazoria County Deed Records;

THENCE from the point of beginning N. 66° 49' 20" W. along the southwest-erly line of said 136.96 acre tract of land and the northeasterly line of Highway No. 518 262.85 feet to a point for corner;

THENCE N. 41° 10' 10" E. 381.19 feet to a point for corner;

THENCE S. 48° 49' 50" E. 250.00 feet to a point for corner;

THENCE S. 41° 10' 10" W. parallel to and 80 feet from the southeasterly line of said 136.96 acre tract of land 300 feet to the place of beginning and contains 1.955 acres of land.

TRACT 2:

BEGINNING at a point having coordinate X = 3,189,856.0; Y = 644,373.6, said point being the most southerly corner of said 136.96 acre tract of land and

R15-1215
I.D.# 10004

also in the northeasterly line of F. M. Highway No. 518, said point also being in the most westerly corner of the Albert Smith et ux 11.45 acre tract of land as described in Volume 384, Page 541 of the Brazoria County Deed Records and also being in the common line of the T. J. Green Survey, Abstract No. 198, and the W. D. C. Hall Survey, Abstract No. 70;
THENCE from the point of beginning N. 65° 49' 20" W. along the southwesterly line of said 136.96 acre tract of land and the northeasterly line of F. M. Highway No. 518 84.11 feet to a point for corner, said point having coordinate X = 3,189,778.7; Y = 644,406.7, and being the beginning point of Tract 1 described above;
THENCE N. 41° 10' 10" E. along the southeasterly line of Tract 1 described above 300 feet, in all a distance of 1024.73 feet to an angle point;
THENCE N. 42° 12' 20" E. 64.30 feet to a point for corner in the center line of Clear Creek;
THENCE S. 08° 36' 40" E. along the center line of Clear Creek 66.93 feet to an angle point;
THENCE continuing along the center line of Clear Creek S. 10° 39' 20" E. 35.26 feet to a point for corner in the southeasterly line of said 136.96 acre tract of land, said point also being in the common line of the T. J. Green Survey, Abstract No. 198, and the W. D. C. Hall Survey, Abstract No. 70, said point being the most northerly corner of the Albert Smith et ux 11.45 acre tract of land;
THENCE S. 41° 10' 10" W. along the southeasterly line of said 136.96-acre tract of land and the northwesterly line of the Albert Smith et ux 11.45 acre tract of land, also being along the common line of the T. J. Green Survey, Abstract No. 198, and the W. D. C. Hall Survey, Abstract No. 70, 998.01 feet to the place of beginning and contains 1.916 acres of land.

TRACT 3:

COMMENCING at the most easterly corner of Lot No. 122 of the Allison & Richey Gulf Coast Home Company Subdivision, according to the map thereof recorded in Volume 4, Page 48 of the Map Records of Harris County, Texas;
THENCE N. 48° 19' 00" W. along the northeasterly line of said Lot No. 122 80 feet to a point for corner;
THENCE S. 42° 12' 20" W 799.18 feet to the point of beginning, said point having coordinate X = 3,191,239.5; Y = 646,045.0, and being in the center of Clear Creek;
THENCE from the point of beginning following the center line of Clear Creek the following courses and distances:
S. 17° 56' 10" W. 24.91 feet
S. 28° 21' 20" W. 115.51 feet
S. 54° 10' 20" W 100.49 feet
N. 89° 18' 00" W. 22.77 feet to point for corner;
THENCE N. 42° 12' 20" E. 248.28 feet to place of beginning and contains 0.130 of an acre of land.

THE GRANTEE HEREIN, its successors and assigns, acquire no minerals or mineral rights with this conveyance, the said minerals and mineral rights being excepted and reserved to the Grantors, their heirs and assigns, but it is expressly understood and so stipulated that the Grantors, their heirs and assigns, shall not be permitted to drill or operate for minerals on the land herein conveyed, but will be permitted to extract the oil and other minerals from and under said property by directional drilling and other means, so long as Grantee's use of said property is not disturbed.

GRANTORS HEREIN, their heirs and assigns, reserve the right to extend railroad spur tracks, passageways and roads or streets and public utilities across that portion of land designated and described as Tract 2

and Tract 3 above. Said railroad spur tracks, passageways, roads or streets and public utilities are not to be located closer than ten (10) feet to any of Grantee's then existing structures.

This conveyance shall not be construed as creating any rights of ingress and egress in Grantee over other lands of Grantor.

TO HAVE AND TO HOLD the above described premises, together with all and singular the rights and appurtenances thereto in anywise belonging, unto the said Houston Lighting & Power Company, its successors or assigns, forever, and we do hereby bind ourselves, our heirs, executors, administrators and assigns, to warrant and forever defend, all and singular the said premises unto the said Houston Lighting & Power Company, its successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof.

WITNESS our hands this 19th day of January, A. D. 1973.

Gladys N. Dissen
Gladys N. Dissen

W. J. Dissen Jr
W. J. Dissen, Jr.

John Stuart Dissen
John Stuart Dissen

STATE OF TEXAS ◊
COUNTY OF HARRIS ◊

BEFORE ME, the undersigned authority, a Notary Public in and for Harris County, Texas, on this day personally appeared Gladys N. Dissen, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that she executed the same for the purposes and consideration therein expressed.

GIVEN under my hand and seal of office this 19th day of January, A. D. 1973

Louise N. Aubrey
Notary Public, Harris County, Texas

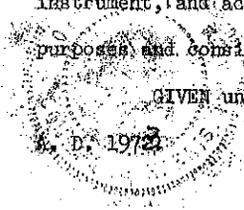


APPROVED
AS TO FORM
BAKER & BOTTS
Caldwell

STATE OF TEXAS)

COUNTY OF HARRIS)

BEFORE ME, the undersigned authority, a Notary Public in and for Harris County, Texas, on this day personally appeared W. J. Dissen, Jr., known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.



GIVEN under my hand and seal of office this 19th day of January

Louise N. Aubrey
Notary Public, Harris County, Texas

STATE OF TEXAS)

COUNTY OF HARRIS)

BEFORE ME, the undersigned authority, a Notary Public in and for Harris County, Texas, on this day personally appeared John Stuart Dissen, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN under my hand and seal of office this 19th day of January

A. D. 1972

Louise N. Aubrey
Notary Public, Harris County, Texas

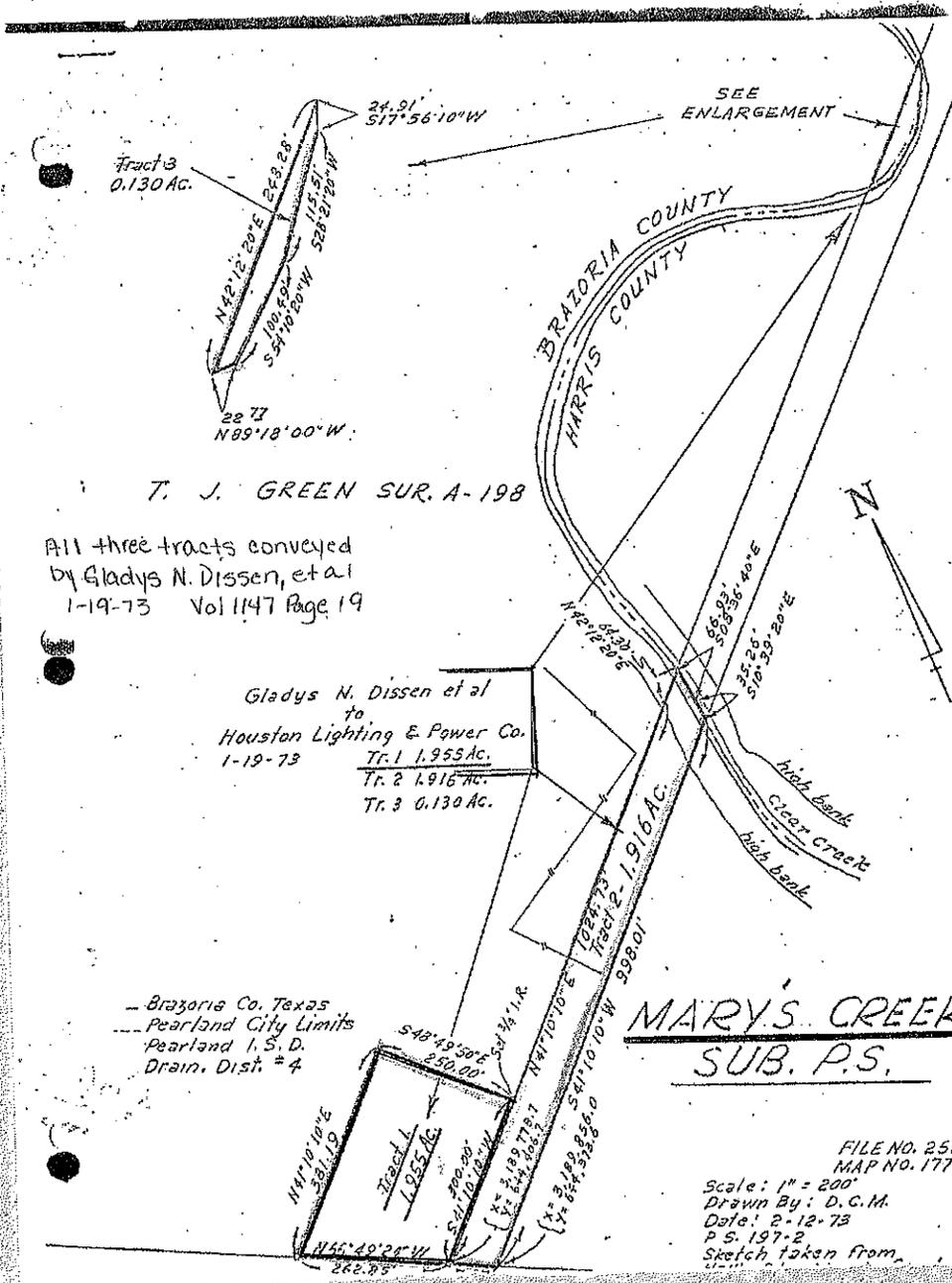


FILED FOR RECORD
AT 4:47 P.M. JAN 22 1973
CLERK COURT, BRAZORIA CO., TEXAS
DEPUTY

[Handwritten signature]



FILED 1 23 1973



T. J. GREEN SUR. A-198

All three tracts conveyed
by Gladys N. Dissen, et al
1-19-73 Vol 1147 Page 19

Gladys N. Dissen et al
to
Houston Lighting & Power Co.
1-19-73
Tr. 1 1.955 Ac.
Tr. 2 1.916 Ac.
Tr. 3 0.130 Ac.

- Brazoria Co. Texas
- Pearland City Limits
- Pearland I.S.D.
- Drain. Dist. # 4

MARY'S CREEK
SUB. P.S.

FILE NO. 2521
MAP NO. 177

Scale: 1" = 200'
Drawn By: D.C.M.
Date: 2-12-73
P.S. 197-2
Sketch taken from

"Dumah, Tim F" <tim.dumah@centerpointenergy.com>
"AGantuah@ci.pearland.tx.us" <AGantuah@ci.pearland.tx.us>
06/08/2010 01:12 PM
RE: Conditional Use Permit

Hello,

It was nice speaking with you today, here's the structural calculation for the tower for your review. I will submit the letter of intent and also the fee early next week by his grace. Have a great day.

Tim

From: AGantuah@ci.pearland.tx.us [<mailto:AGantuah@ci.pearland.tx.us>]
Sent: Friday, May 14, 2010 10:41 AM
To: Dumah, Tim F
Subject: Conditional Use Permit

Dear Tim,

Thank you for coming into the City of Pearland and reviewing your application materials for the conditional use permit.

The following things were needed by 9:00 am May 14, 2010 today, however if you can get me the missing documentation by 12:00 pm on Monday May 17, 2010 I will be able to get you on the June 21, 2010 agenda for the Joint Public Hearing (JPH). If the documentation I receive is not sufficient or past 12:00 pm Monday then, it will need to be assigned to the following JPH.:

1. structural calculations for the tower.
2. the fee
3. the letter of intent

Angela Gantuah
Senior Planner
City of Pearland
3523 Liberty Drive
Pearland, TX 77581
281.652.1742 phone
281.652.1702 fax
agantuah@ci.pearland.tx.us [attachment "Sabre Structural Design Report.pdf" deleted by Angela Gantuah/COP]

RE: Conditional Use Permit

Dumah, Tim F

to:

AGantuah@ci.pearland.tx.us

06/09/2010 10:00 AM

Show Details

- 1) Is this submission for both towers? Yes
- 2) Page A-11, some of the calculations are not legible. I cannot see the numbers in the boxes as they are too dark. I will bring the hard copy to your office.
- 3) Please see Section 2. 5.5.2 In the Unified Development Code, there are some things that needed to be provided still. I'm not sure, I will look again.
- 4) There still is no map that shows an inventory of all the other towers within the City or 1 mile of the corporate limits, specifying location, height, and design of each tower. I will email our tower map to you, bear in mind, we are not a cell phone company, and we just have a basic map to present.
- 5) Show that you have made a good faith effort in your attempts to contact the other tower owners that demonstrates you have had no other choice but to erect a new tower. YES

Best Regards,

Tim Dumah

From: AGantuah@ci.pearland.tx.us [mailto:AGantuah@ci.pearland.tx.us]

Sent: Tuesday, June 08, 2010 1:32 PM

To: Dumah, Tim F

Subject: RE: Conditional Use Permit

Thank you so much for the update this morning. I have the following questions:

- 1) Is this submission for both towers?
- 2) Page A-11, some of the calculations are not legible. I can not see the numbers in the boxes as they are too dark.
- 3) Please see Section 2. 5.5.2 In the Unified Development Code, there are some things that needed to be provided still.
- 4) There still is no map that shows an inventory of all the other towers within the City or 1 mile of the corporate limits, specifying location, height, and design of each tower.
- 5) Show that you have made a good faith effort in your attempts to contact the other tower owners that demonstrates you have had no other choice but to erect a new tower.

Please contact me if you have any questions. As soon as we received a complete application.

Angela Gantuah
Senior Planner
City of Pearland
3523 Liberty Drive
Pearland, TX 77581
281.652.1742 phone
281.652.1702 fax
agantuah@ci.pearland.tx.us

**POSTING OF ZONING NOTIFICATION SIGNS
ON PROPERTY UNDER CONSIDERATION
FOR A ZONE CHANGE (OR CONDITIONAL USE PERMIT)**

Any person, firm or corporation requesting a zoning change, a conditional use permit (CUP), or a variance shall be required to erect and maintain a sign(s), to be inspected by the City, upon the property for which a variance or zoning change has been requested.

Such sign(s) shall be located as follows:

- (1) One (1) sign per street frontage shall be located within thirty feet (30') of the abutting street, or as determined by the City.
- (2) So as to be clearly visible and readable from the public right-of-way and not obstructed in any manner.
- (3) So as not to create a hazard to traffic on the public rights-of-way abutting the property.
- (4) On the subject property at least ten (10) days prior to the hearing of such zoning change request by the Planning and Zoning Commission, and to remain continuously on said property until final action by the City Council or withdrawal of the case by the applicant. Removal of the sign by the applicant prior to a recommendation by the Planning and Zoning Commission and/or a final decision by the City Council shall constitute a withdrawal of the request.
- (5) The signs shall be as follows:
 - A minimum sign size of 2 feet by 3 feet, but no larger than 4 feet by 4 feet
 - At least 2 feet above the ground
 - Blue or black lettering that is a minimum of 3 inches by 1/2 inch, on a white background
 - Message content as follows:

PROPOSED (SPECIFY REQUEST)
Contact City of Pearland
281-652-1768

***Signs must be professionally made; handwritten signs are not allowed.**

***Signs must be freestanding and cannot be attached to a tree, fence, or building.**

 5/14/10

APPLICATION CHECKLIST FOR THE FOLLOWING
• Conditional Use Permits (CUP)

- Application, filled out completely, and signed by the owner of the property to be considered for the conditional use permit
- Metes and Bounds Description, (Survey, or a Plat of the property that contain the metes and bounds description).
- Parcel map, printed from the City of Pearland website, indicating the location and boundaries of the subject property.
- Letter of Intent, explaining the conditional use permit request in detail, specifying proposed uses, specific operations of the use, square footage of buildings, unique characteristics of the property, and any other necessary information
will email 5/17/10
- Application fee of \$250.00, by cash, check made payable to the City of Pearland, or credit card (Visa and MasterCard only)
will pay on monday 5/17/10
- Site Plan or Plot Plan showing the proposed layout of the subject property, including any proposed buildings, parking, landscaped areas, detention ponds, fences, and any other relevant information
- Acknowledgement of the sign to be posted on the property 10 days prior to the public hearing
- Provide evidence or proof that all taxes and obligations have been paid regarding the subject property.

** need structural calculations
for the new tower*

all 5/14/10

*For June 21, 2010
SPH*

*need the above items
by 12:00 on May 17, 2010*

Network Communication Design Topology:

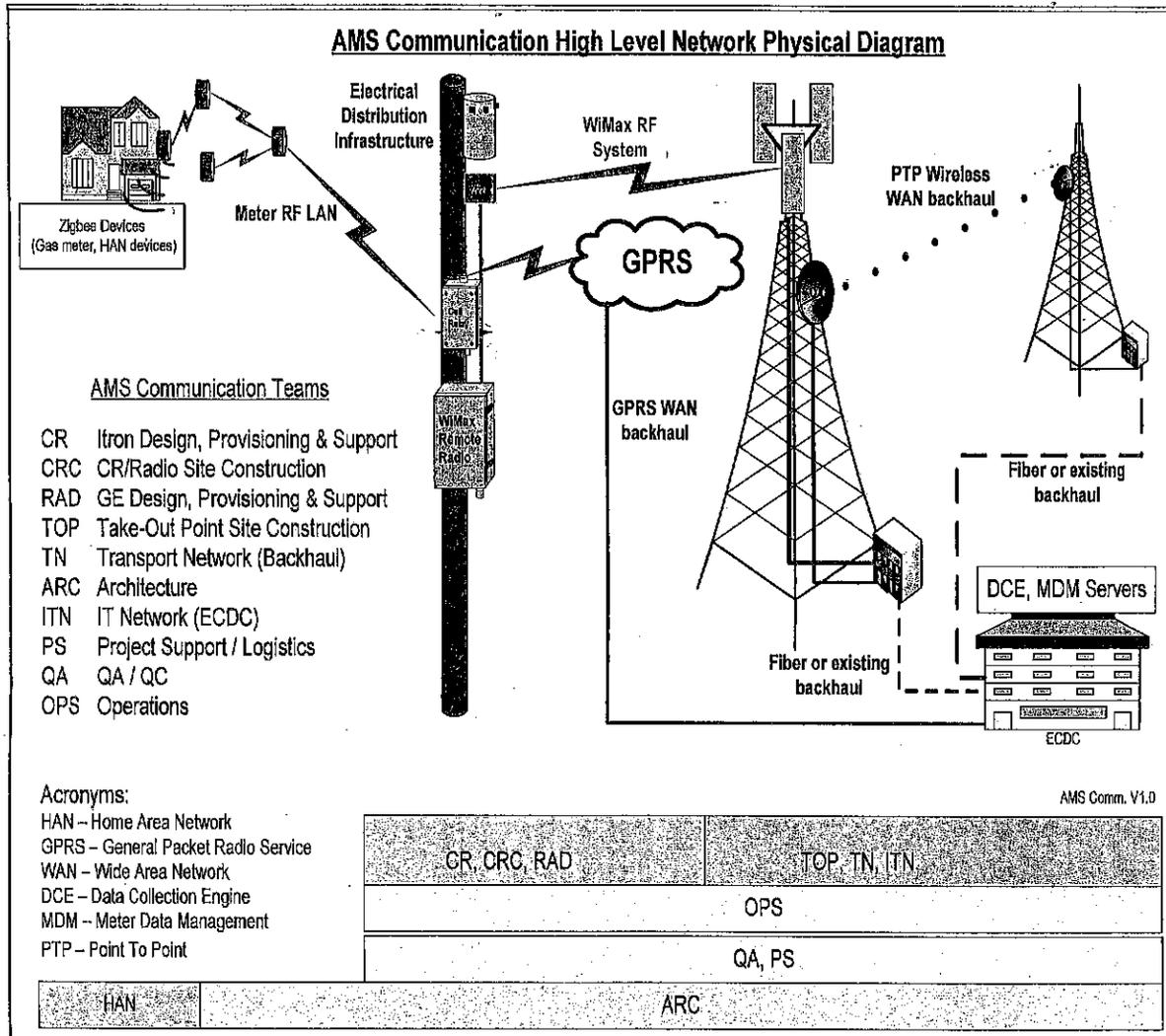
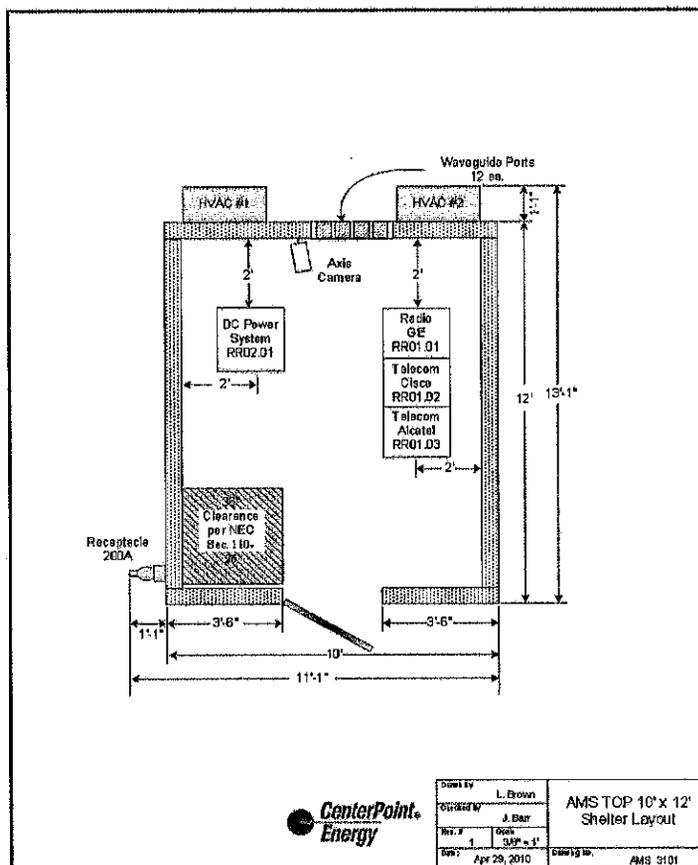


FIG. 3101011611 Deployment by Vendor

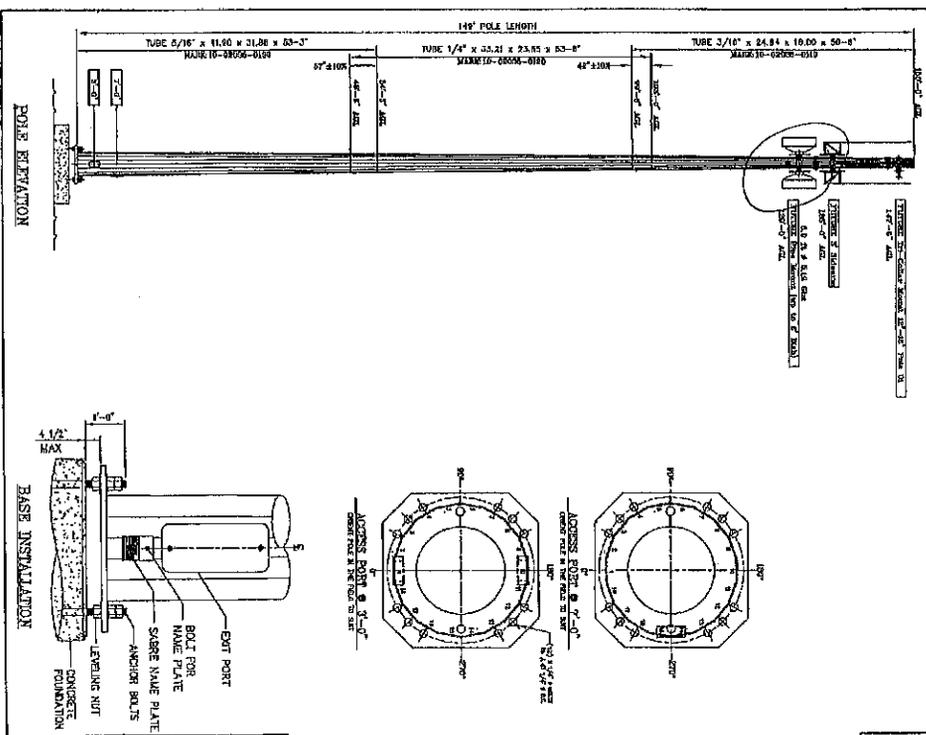


Drawn by	L. Brown	AMS TOP 10' x 12' Shelter Layout
Checked by	J. Barr	
Rev. #	1	Scale: 3/8" = 1'
Date:	Apr 29, 2010	Drawing No.: AMS 3101

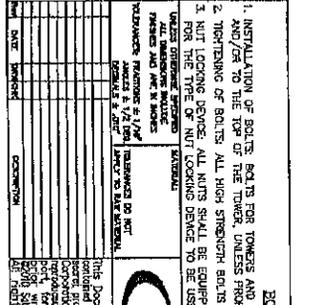
NOTICE: ALL PARTS ARE TO BE INVENTORIED AND ANY SHORTAGES REPORTED WITHIN 48 HOURS OF DELIVERY. SHORTAGES REPORTED AFTER THIS TIME PERIOD WILL BE CHARGED TO THE CONTRACTOR. CALL 800/369-6890 ASK FOR THE CONTRACTS DEPARTMENT

DRAWING LIST

MONOPOLE ERECTION	10-02035-4M
MONOPOLE FOUNDATION(S)	10-02035-71
MONOPOLE FABRICATION	10-02035-01
TA-CORRODING-101-MONOPOLE	C30150110
BILL OF MATERIALS	BOM-1



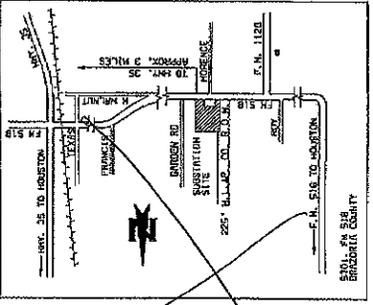
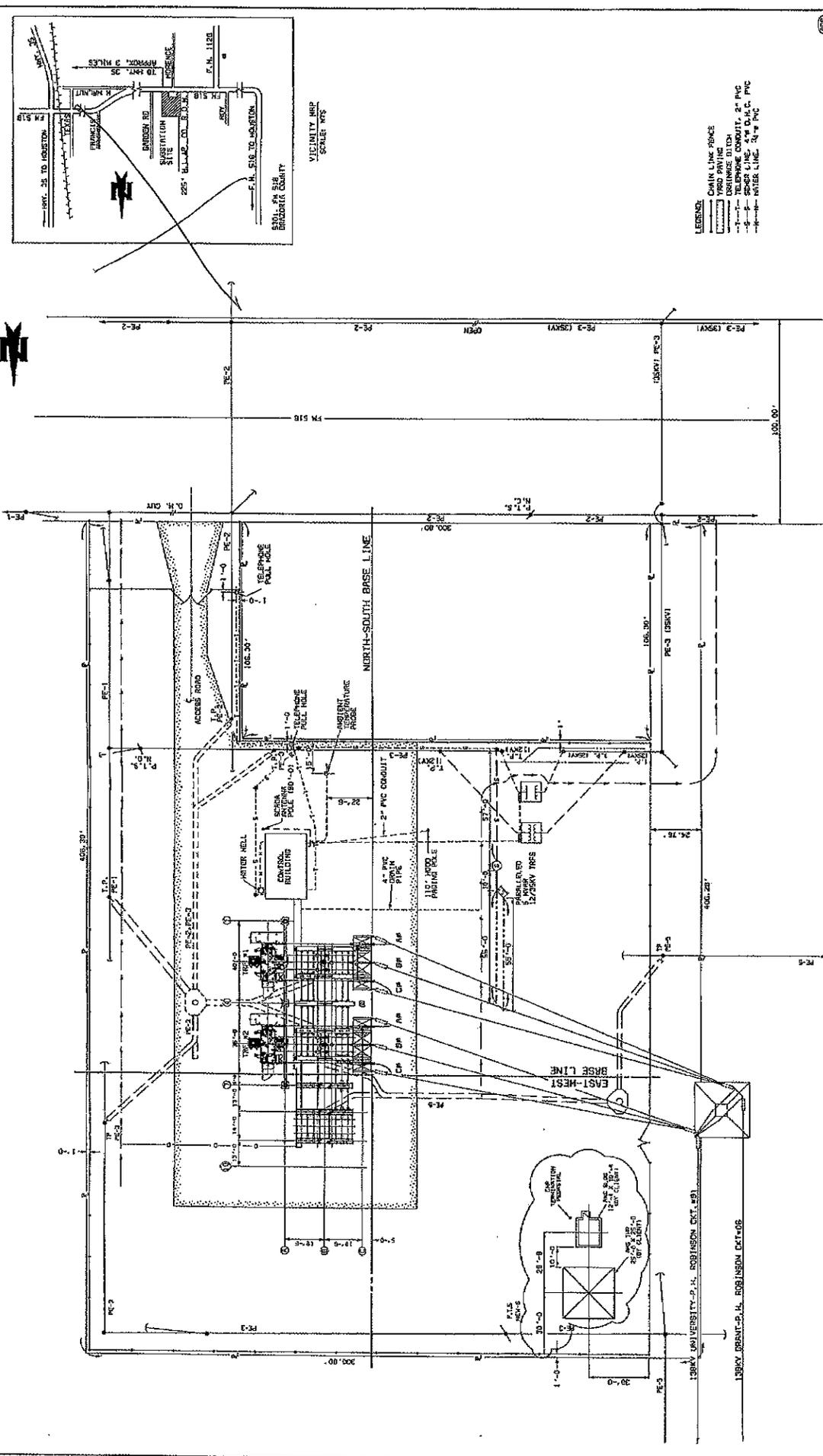
- SOLO INSTALLATION DETAILS**
1. INSTALLATION OF BOLTS FOR TOWERS AND ANTENNAS SHALL BE INSTALLED WITH THE NUTS FACING TO THE OUTSIDE AND/OR TO THE TOP OF THE TOWER, UNLESS PROHIBITED BY LACK OF CLEARANCE.
 2. TIGHTENING OF BOLTS: ALL HIGH STRENGTH BOLTS SHALL BE TIGHTENED TO A STUO-TIGHT CONDITION, AS DEFINED BY AISC.
 3. NUT LOCKING DEVICES: ALL NUTS SHALL BE EQUIPPED WITH SOME TYPE OF NUT LOCKING DEVICE, SEE THE INDIVIDUAL DRAWINGS FOR THE TYPE OF NUT LOCKING DEVICE TO BE USED FOR EACH INDIVIDUAL APPLICATION.



		CENTERPOINT ENERGY, INC. KING STATION, TX 150.00 MONOPOLE	
DATE	10-02035	SIZE	10-02035-MM
REV	0	SCALE	1" = 2'
APP'D		DATE	10/26/10
CHK'D		BY	JW
DESIGNED BY		BY	W

CONTINGENT

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- LEGEND:**
- 138KV LINE 20KVE
 - 115KV LINE 20KVE
 - 23KV LINE 20KVE
 - TELEPHONE CONDUIT, 2" PVC
 - TELEPHONE CONDUIT, 1" PVC
 - TELEPHONE CONDUIT, 3/4" PVC
 - TELEPHONE CONDUIT, 1/2" PVC

PEARLAND SUBSTATION
GENERAL LOCATION PLAN
CENTERPOINT ENERGY, INC.

CONFIDENTIAL AND PROPRIETARY INFORMATION-CELL

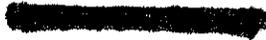
NO.	DATE	BY	CHKD	APP'D	DESCRIPTION
1	12-11-10	WJG	WJG	WJG	INSTALL MBS SYSTEM
2	12-11-10	WJG	WJG	WJG	INSTALL 6TH TRAY FEEDER
3	12-11-10	WJG	WJG	WJG	INSTALL 2 TRAYS, MOUNT UNITS
4	12-11-10	WJG	WJG	WJG	REVISION



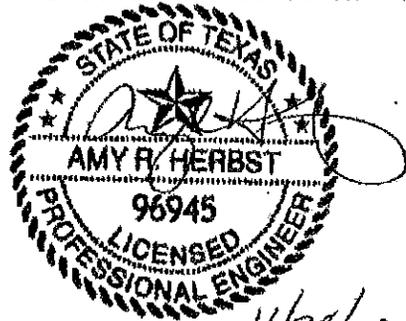
Structural Design Report
150' S3R Series SD Self-Supporting Tower
located at: [REDACTED] Substation, TX

prepared for: CENTERPOINT ENERGY INC
by: Sabre Towers & Poles™

Job Number: 10-11119



Tower Profile.....	1
Foundation Design Summary.....	2
Maximum Leg Loads.....	3
Maximum Diagonal Loads.....	4
Maximum Foundation Loads.....	5
Calculations.....	A1-A11



Tower by TRJ

Foundation by NJS

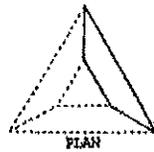
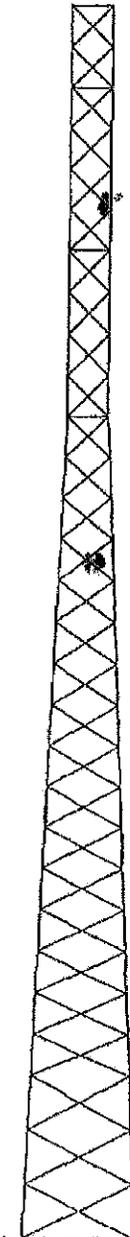
Approved by ARH

11/24/09

Sabre Communications Corporation
Texas Registration Number F-4365

ISORHAST Version 3.2 + R (c) Copyright Inc. 2007 Phone: (416) 736-7463

Leg	SR 3-1/2" Ø	SR 3" Ø	SR 2-3/4" Ø	SR 2-1/2" Ø	SR 1-3/4" Ø
Diagonal	L 2"x2"x3/16"	L 2"x2"x3/16"	L 2"x2"x3/16"	L 2"x2"x3/16"	L 2"x2"x1/8"
Horizontal	(1) 3/4"	(1) 5/8"	(1) 5/8"	(1) 5/8"	(1) 5/8"
Brace Bolts	3 R 6.7"	3 R 6.7"	3 R 6.7"	3 R 6.7"	3 R 6.7"
Tare Width	12.8"	12.8"	12.8"	12.8"	12.8"
Panel Height & Details	26 @ 1.0'	26 @ 1.0'	26 @ 1.0'	26 @ 1.0'	26 @ 1.0'
	0.0'	20.0'	40.0'	60.0'	80.0'
					95.0'
					115.0'
					135.0'
					145.0'
					150.0'



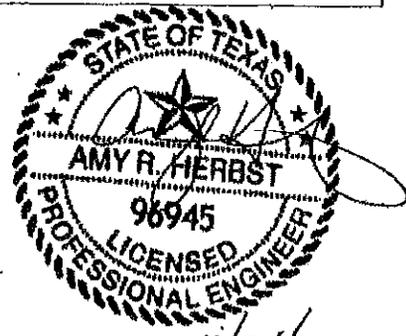
- NOTES:**
- The tower model is SSR Series SD.
 - Transmission lines are to be attached to standard 6 hole waveguide ladders.
 - Azimuths are relative (not based on true north).
 - Foundation loads shown are maximums.
 - (6) 1" dia. F1554 grade 105 anchor bolts per leg. Minimum 34.5" embedment from top of concrete to top of nut.
 - All unequal angles are oriented with the short leg vertical.
 - This tower was designed for Structure Class II, Exposure Category C and Topographic Category I.
 - The foundation loads shown below are factored loads.

ANTENNA LIST

NO	ELEV	ANTENNA	TX-LINE
1	147'	(3) 9P3330-1(WP120	(3) 10P5-50A
2	140'	(1) 450-2H	
3	139'	(1) 1130-11	
4	138'	(1) 1109-1	
5	133'	(3) 3ft Sidearm	(3) 7/8
6	129'	(2) 6' H.P. Dish	(2) 6WS2
7	129'	(2) 2' H.P. Dish	(2) 6WS2

MATERIAL LIST

NO	TYPE
A	L 2-1/2"x2-1/2"x3/16"
B	L 2"x2"x1/8"
C	L 2"x2"x3/16"



TOTAL FOUNDATION LOADS	INDIVIDUAL FOOTING LOADS
H=30.23 k	H=10.29 k
V=40.73 k	V=221.46 k
M=2558.20 k-ft	M=197.00 k
T=7.09 k-ft	

Sabre Towers And Poles
 2101 Murray Street (P.O. Box 656), Sioux City, IA 51111
 Phone: (712) 258-6690 Fax: (712) 258-9250

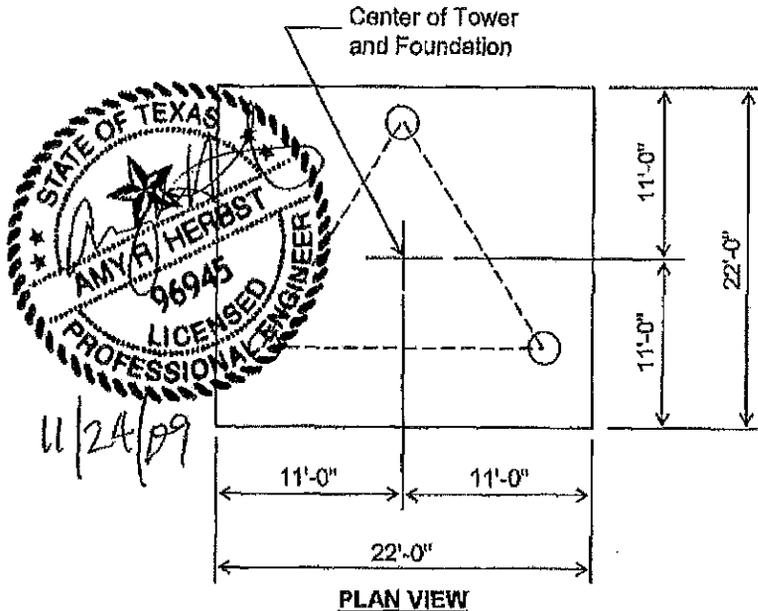
Client: CHMIRAQUINT ENERGY INC Job No: 10-11119 Date: 19 nov 2009
 Location: Rittenhouse Substation, TX Total Height: 150.00' Tower Height: 150.00'
 Standard: TIA 222-G-2005 Design Wind & Ice: 110mph 0" ice & 30mph 0.5" ice



No.: 10-11119
 Page: 2
 Date: 11/24/09
 By: NJS

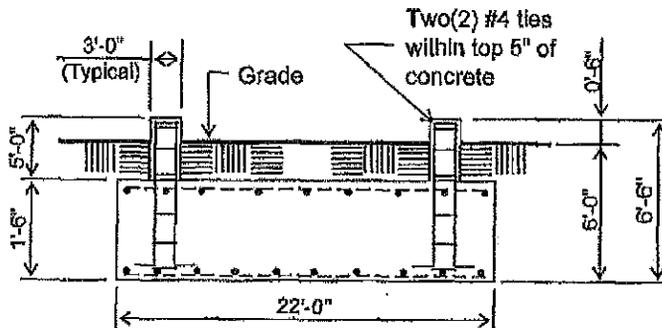
Customer: CENTERPOINT ENERGY INC
Site: Rlittenhouse Substation, TX

150 ft. Model S3R Series SD Self Supporting Tower At
 110 mph Wind with no ice and 30 mph Wind with 0.5 in. Ice per ANSI/TIA-222-G-2005.
 Antenna Loading per Page 1



Notes:

- 1). Concrete shall have a minimum 28-day compressive strength of 4000 PSI, in accordance with ACI 318-05.
- 2). Rebar to conform to ASTM specification A615 Grade 60.
- 3). All rebar to have a minimum of 3" concrete cover.
- 4). All exposed concrete corners to be chamfered 3/4".
- 5). The foundation design is based on the geotechnical report by Murillo Engineering; Project # 229-73E; Dated May 1973.



ELEVATION VIEW

(30.82 Cu. Yds.)
 (1 REQUIRED; NOT TO SCALE)

6). See the geotechnical report for compaction requirements, if specified.

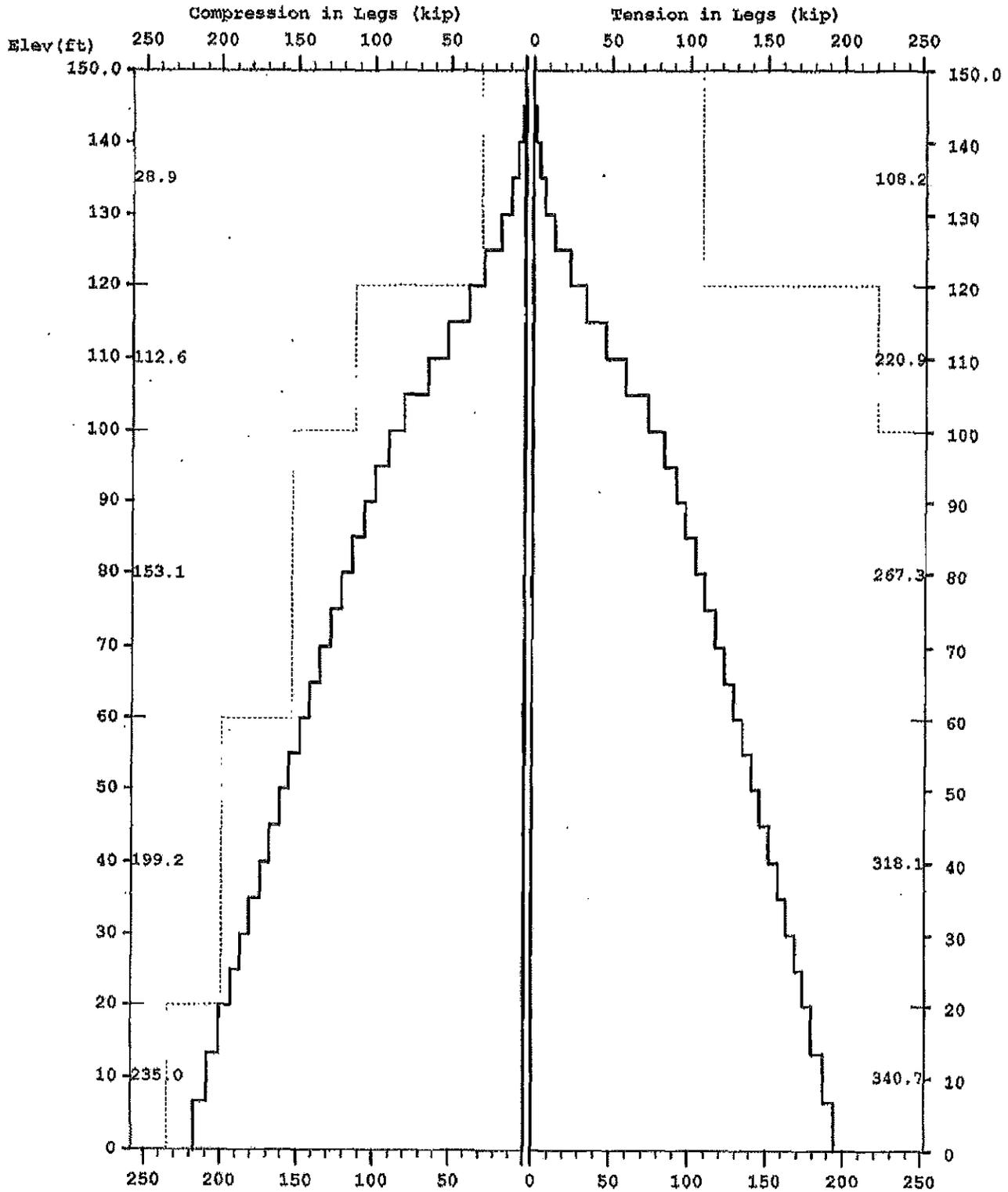
7). The foundation is based on the following factored loads:
 Factored download (kips) = 40.73
 Factored overturn (kip-ft) = 2558.2
 Factored shear (kips) = 30.23

8). The foundation has been designed to bear on soil with a minimum ultimate bearing capacity of 4ksf. (Ultimate Bearing Capacity shall be verified prior to foundation installation)

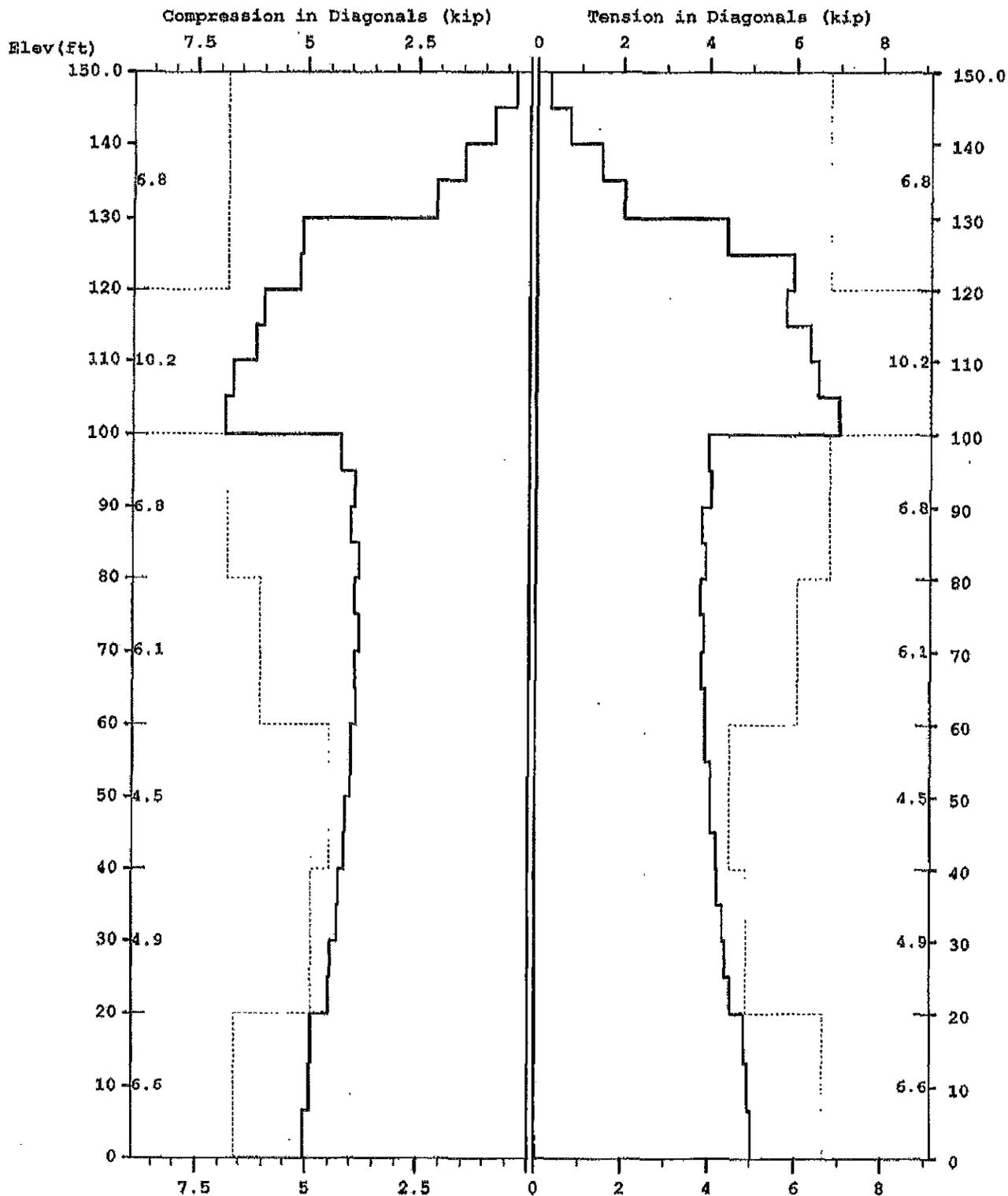
Rebar Schedule per Mat and per Pier	
Pier	(12) #7 vertical rebar w/hooks at bottom w/#4 Rebar ties, two (2) within top 5" of pier then 12" C/C
Mat	(24) #8 horizontal rebar evenly spaced each way top and bottom. (96 total)

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Maximum

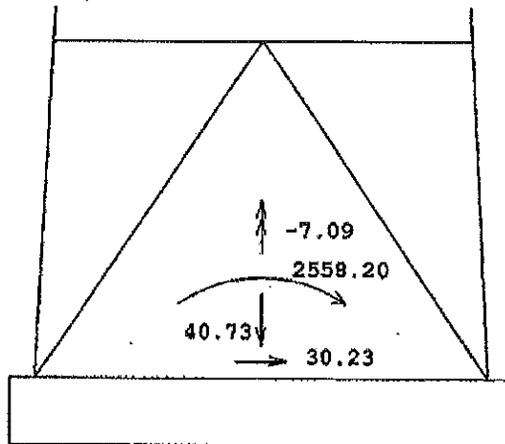


Maximum

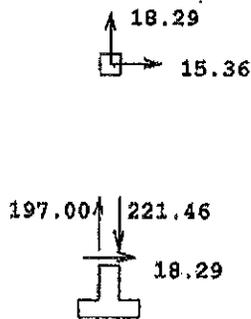


Maximum

TOTAL FOUNDATION LOADS (kip, ft-kip)



INDIVIDUAL FOOTING LOADS (kip)



10-11119.txt

MAST G- Latticed Tower Analysis (Unguyed) (c)2005 Guymast Inc. 416-736-7453
 Processed under license at:

Sabre Towers And Poles

on: 19 nov 2009 at: 10:08:24

MAST GEOMETRY (ft)

PANEL TYPE	NO.OF LEGS	ELEV.AT BOTTOM	ELEV.AT TOP	F.W.,AT BOTTOM	F.W.,AT TOP	TYPICAL PANEL HEIGHT
X	3	145.00	150.00	5.00	5.00	5.00
X	3	140.00	145.00	5.00	5.00	5.00
X	3	135.00	140.00	5.00	5.00	5.00
X	3	120.00	135.00	5.00	5.00	5.00
X	3	115.00	120.00	5.00	5.00	5.00
X	3	100.00	115.00	5.00	5.00	5.00
X	3	95.00	100.00	5.44	5.00	5.00
X	3	80.00	95.00	6.75	5.44	5.00
X	3	60.00	80.00	8.50	6.75	5.00
X	3	40.00	60.00	10.25	8.50	5.00
X	3	20.00	40.00	12.00	10.25	5.00
X	3	0.00	20.00	13.75	12.00	6.67

MEMBER PROPERTIES

MEMBER TYPE	BOTTOM ELEV ft	TOP ELEV ft	X-SECTN AREA in.sq	RADIUS OF GYRAT in	ELASTIC MODULUS ksi	THERMAL EXPANSN /deg
LE	120.00	150.00	2.405	0.438	29000.	0.0000116
LE	100.00	120.00	4.909	0.438	29000.	0.0000116
LE	60.00	100.00	5.940	0.438	29000.	0.0000116
LE	20.00	60.00	7.069	0.438	29000.	0.0000116
LE	0.00	20.00	9.621	0.438	29000.	0.0000116
DI	120.00	150.00	0.484	0.626	29000.	0.0000116
DI	100.00	120.00	0.715	0.626	29000.	0.0000116
DI	40.00	100.00	0.484	0.626	29000.	0.0000116
DI	20.00	40.00	0.715	0.626	29000.	0.0000116
DI	0.00	20.00	0.902	0.626	29000.	0.0000116
HO	145.00	150.00	0.484	0.626	29000.	0.0000116
HO	135.00	140.00	0.484	0.626	29000.	0.0000116
HO	115.00	120.00	0.715	0.626	29000.	0.0000116
HO	95.00	100.00	0.484	0.626	29000.	0.0000116

FACTORED MEMBER RESISTANCES

BOTTOM ELEV ft	TOP ELEV ft	LEGS		DIAGONALS		HORIZONTALS		INT BRACING	
		COMP kip	TENS kip	COMP kip	TENS kip	COMP kip	TENS kip	COMP kip	TENS kip
145.0	150.0	28.89	108.24	6.80	6.80	5.82	5.82	0.00	0.00
140.0	145.0	28.89	108.24	6.80	6.80	0.00	0.00	0.00	0.00
135.0	140.0	28.89	108.24	6.80	6.80	5.82	5.82	0.00	0.00

10-11119.txt

120.0	135.0	28.89	108.24	6.80	6.80	0.00	0.00	0.00	0.00
115.0	120.0	112.60	220.89	10.20	10.20	8.46	8.46	0.00	0.00
100.0	115.0	112.60	220.89	10.20	10.20	0.00	0.00	0.00	0.00
95.0	100.0	153.15	267.28	6.80	6.80	5.82	5.82	0.00	0.00
80.0	95.0	153.15	267.28	6.80	6.80	0.00	0.00	0.00	0.00
60.0	80.0	153.15	267.28	6.05	6.05	0.00	0.00	0.00	0.00
40.0	60.0	199.21	318.09	4.49	4.49	0.00	0.00	0.00	0.00
20.0	40.0	199.21	318.09	4.89	4.89	0.00	0.00	0.00	0.00
0.0	20.0	234.96	340.73	6.63	6.63	0.00	0.00	0.00	0.00

* Only 3 condition(s) shown in full
 * Some concentrated wind loads may have been derived from full-scale wind tunnel testing

LOADING CONDITION A

110 mph wind with no ice. Wind Azimuth: 00

MAST LOADING

LOAD TYPE	ELEV ft	APPLY. RADIUS ft	LOAD. AT AZI	LOAD AZI	FORCES		MOMENTS	
					HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL ft-kip
C	147.0	0.00	0.0	0.0	0.26	0.07	0.00	0.00
C	147.0	0.00	0.0	0.0	0.26	0.07	0.00	0.00
C	147.0	0.00	0.0	0.0	0.26	0.07	0.00	0.00
C	140.0	0.00	0.0	0.0	0.24	0.03	0.00	0.00
C	139.0	0.00	0.0	0.0	0.21	0.02	0.00	0.00
C	138.0	0.00	0.0	0.0	0.19	0.02	0.00	0.00
C	133.0	0.00	0.0	0.0	0.26	0.18	0.00	0.00
C	133.0	0.00	0.0	0.0	0.26	0.18	0.00	0.00
C	133.0	0.00	0.0	0.0	0.26	0.18	0.00	0.00
D	150.0	0.00	0.0	0.0	0.10	0.06	0.01	0.00
D	140.0	0.00	0.0	0.0	0.11	0.06	0.02	-0.01
D	140.0	0.00	0.0	0.0	0.12	0.07	0.02	-0.01
D	130.0	0.00	0.0	0.0	0.11	0.06	0.02	-0.01
D	130.0	0.00	0.0	0.0	0.14	0.07	0.02	0.02
D	120.0	0.00	0.0	0.0	0.15	0.07	0.02	0.03
D	120.0	0.00	0.0	0.0	0.16	0.12	0.02	0.03
D	115.0	0.00	0.0	0.0	0.16	0.12	0.02	0.03
D	115.0	0.00	0.0	0.0	0.15	0.11	0.02	0.03
D	100.0	0.00	0.0	0.0	0.15	0.11	0.02	0.03
D	100.0	0.00	0.0	0.0	0.16	0.12	0.02	0.02
D	80.0	0.00	0.0	0.0	0.15	0.11	0.01	0.02
D	80.0	0.00	0.0	0.0	0.15	0.12	0.02	0.03
D	60.0	0.00	0.0	0.0	0.16	0.12	0.02	0.03
D	60.0	0.00	0.0	0.0	0.16	0.13	0.03	0.04
D	40.0	0.00	0.0	0.0	0.16	0.14	0.02	0.04
D	40.0	0.00	0.0	0.0	0.15	0.15	0.03	0.05
D	20.0	0.00	0.0	0.0	0.16	0.15	0.03	0.05
D	20.0	0.00	0.0	0.0	0.14	0.19	0.04	0.05
D	0.0	0.00	0.0	0.0	0.15	0.19	0.04	0.05

ANTENNA LOADING

10-11119.txt

.....ANTENNA.....			ATTACHMENT	ANTENNA FORCES.....			
TYPE	ELEV	AZI	RAD	AZI	AXIAL	SHEAR	GRAVITY	TORSION
	ft		ft		kip	kip	kip	ft-kip
HP	129.0	0.0	4.4	60.0	0.21	0.00	0.05	0.00
HP	129.0	180.0	4.4	120.0	-1.53	0.00	0.34	0.00
HP	129.0	0.0	4.4	0.0	1.91	0.00	0.34	0.00
HP	129.0	180.0	4.4	240.0	-0.17	0.00	0.05	0.00

SUPPRESS PRINTING

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LOADS INPUT	...FOR THIS LOADING..		MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes	no	no	no	no

LOADING CONDITION M

110 mph wind with no ice. Wind Azimuth: 00

MAST LOADING

=====

LOAD TYPE	ELEV ft	APPLY.. RADIUS ft	LOAD..AT AZI	LOAD AZIFORCES.....	MOMENTS.....	
					HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL ft-kip
C	147.0	0.00	0.0	0.0	0.26	0.05	0.00	0.00
C	147.0	0.00	0.0	0.0	0.26	0.05	0.00	0.00
C	147.0	0.00	0.0	0.0	0.26	0.05	0.00	0.00
C	140.0	0.00	0.0	0.0	0.24	0.02	0.00	0.00
C	139.0	0.00	0.0	0.0	0.21	0.02	0.00	0.00
C	138.0	0.00	0.0	0.0	0.19	0.02	0.00	0.00
C	133.0	0.00	0.0	0.0	0.26	0.14	0.00	0.00
C	133.0	0.00	0.0	0.0	0.26	0.14	0.00	0.00
C	133.0	0.00	0.0	0.0	0.26	0.14	0.00	0.00
D	150.0	0.00	0.0	0.0	0.10	0.05	0.01	0.00
D	140.0	0.00	0.0	0.0	0.11	0.04	0.01	-0.01
D	140.0	0.00	0.0	0.0	0.12	0.05	0.01	-0.01
D	130.0	0.00	0.0	0.0	0.11	0.05	0.01	-0.01
D	130.0	0.00	0.0	0.0	0.14	0.05	0.01	0.02
D	120.0	0.00	0.0	0.0	0.15	0.05	0.01	0.03
D	120.0	0.00	0.0	0.0	0.16	0.09	0.01	0.03
D	115.0	0.00	0.0	0.0	0.16	0.09	0.01	0.03
D	115.0	0.00	0.0	0.0	0.15	0.08	0.01	0.03
D	100.0	0.00	0.0	0.0	0.15	0.08	0.01	0.03
D	100.0	0.00	0.0	0.0	0.16	0.09	0.01	0.02
D	80.0	0.00	0.0	0.0	0.15	0.09	0.01	0.02
D	80.0	0.00	0.0	0.0	0.15	0.09	0.02	0.03
D	60.0	0.00	0.0	0.0	0.16	0.09	0.01	0.03
D	60.0	0.00	0.0	0.0	0.16	0.10	0.02	0.04
D	40.0	0.00	0.0	0.0	0.16	0.10	0.02	0.04
D	40.0	0.00	0.0	0.0	0.15	0.11	0.03	0.05
D	20.0	0.00	0.0	0.0	0.16	0.12	0.02	0.05

10-11119.txt

D	20.0	0.00	0.0	0.0	0.14	0.14	0.03	0.05
D	0.0	0.00	0.0	0.0	0.15	0.14	0.03	0.05

ANTENNA LOADING

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.....ANTENNA.....			ATTACHMENT	ANTENNA FORCES.....			
TYPE	ELEV ft	AZI	RAD ft	AZI	AXIAL kip	SHEAR kip	GRAVITY kip	TORSION ft-kip
HP	129.0	0.0	4.4	60.0	0.21	0.00	0.04	0.00
HP	129.0	180.0	4.4	120.0	-1.53	0.00	0.25	0.00
HP	129.0	0.0	4.4	0.0	1.91	0.00	0.25	0.00
HP	129.0	180.0	4.4	240.0	-0.17	0.00	0.04	0.00

SUPPRESS PRINTING

=====

LOADS INPUT	...FOR THIS LOADING..			MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS		ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
	no	yes	yes	yes	no	no	no	no

LOADING CONDITION Y

30 mph wind with 0.5 ice. Wind Azimuth: 00

MAST LOADING

=====

LOAD TYPE	ELEV ft	APPLY.. RADIUS ft	LOAD.. AZI	AT AZI	LOAD AZIFORCES.....	MOMENTS.....	
						HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL ft-kip
C	147.0	0.00	0.0	0.0	0.0	0.02	0.10	0.00	0.00
C	147.0	0.00	0.0	0.0	0.0	0.02	0.10	0.00	0.00
C	147.0	0.00	0.0	0.0	0.0	0.02	0.10	0.00	0.00
C	140.0	0.00	0.0	0.0	0.0	0.02	0.05	0.00	0.00
C	139.0	0.00	0.0	0.0	0.0	0.02	0.04	0.00	0.00
C	138.0	0.00	0.0	0.0	0.0	0.02	0.04	0.00	0.00
C	133.0	0.00	0.0	0.0	0.0	0.02	0.29	0.00	0.00
C	133.0	0.00	0.0	0.0	0.0	0.02	0.29	0.00	0.00
C	133.0	0.00	0.0	0.0	0.0	0.02	0.29	0.00	0.00
D	150.0	0.00	0.0	0.0	0.0	0.01	0.15	0.04	0.00
D	145.0	0.00	0.0	0.0	0.0	0.01	0.15	0.04	0.00
D	145.0	0.00	0.0	0.0	0.0	0.01	0.14	0.06	0.00
D	140.0	0.00	0.0	0.0	0.0	0.01	0.14	0.06	0.00
D	140.0	0.00	0.0	0.0	0.0	0.01	0.17	0.06	0.00
D	135.0	0.00	0.0	0.0	0.0	0.01	0.17	0.06	0.00
D	135.0	0.00	0.0	0.0	0.0	0.01	0.15	0.07	0.00
D	130.0	0.00	0.0	0.0	0.0	0.01	0.15	0.07	0.00
D	130.0	0.00	0.0	0.0	0.0	0.01	0.18	0.06	0.00
D	125.0	0.00	0.0	0.0	0.0	0.01	0.18	0.06	0.00
D	125.0	0.00	0.0	0.0	0.0	0.01	0.18	0.05	0.00
D	120.0	0.00	0.0	0.0	0.0	0.01	0.18	0.05	0.00

10-11119.txt

D	120.0	0.00	0.0	0.0	0.01	0.26	0.07	0.00
D	115.0	0.00	0.0	0.0	0.01	0.26	0.07	0.00
D	115.0	0.00	0.0	0.0	0.01	0.23	0.07	0.00
D	100.0	0.00	0.0	0.0	0.01	0.23	0.07	0.00
D	100.0	0.00	0.0	0.0	0.01	0.26	0.06	0.00
D	95.0	0.00	0.0	0.0	0.01	0.26	0.06	0.00
D	95.0	0.00	0.0	0.0	0.01	0.24	0.06	0.00
D	80.0	0.00	0.0	0.0	0.01	0.24	0.05	0.00
D	80.0	0.00	0.0	0.0	0.01	0.24	0.09	0.00
D	60.0	0.00	0.0	0.0	0.01	0.25	0.07	0.00
D	60.0	0.00	0.0	0.0	0.01	0.27	0.11	0.00
D	40.0	0.00	0.0	0.0	0.01	0.28	0.09	0.00
D	40.0	0.00	0.0	0.0	0.01	0.29	0.13	0.00
D	20.0	0.00	0.0	0.0	0.01	0.30	0.11	0.00
D	20.0	0.00	0.0	0.0	0.01	0.32	0.15	0.00
D	13.3	0.00	0.0	0.0	0.01	0.32	0.15	0.00
D	13.3	0.00	0.0	0.0	0.01	0.34	0.18	0.00
D	6.7	0.00	0.0	0.0	0.01	0.34	0.18	0.00
D	6.7	0.00	0.0	0.0	0.01	0.35	0.20	0.00
D	0.0	0.00	0.0	0.0	0.01	0.35	0.20	0.00

ANTENNA LOADING

=====

.....ANTENNA.....			ATTACHMENT	ANTENNA FORCES.....			
TYPE	ELEV	AZI	RAD	AZI	AXIAL	SHEAR	GRAVITY	TORSION
	ft		ft		kip	kip	kip	ft-kip
HP	129.0	0.0	4.4	60.0	0.01	0.00	0.14	0.00
HP	129.0	180.0	4.4	120.0	-0.08	0.00	0.84	0.00
HP	129.0	0.0	4.4	0.0	0.09	0.00	0.84	0.00
HP	129.0	180.0	4.4	240.0	-0.01	0.00	0.14	0.00

SUPPRESS PRINTING

=====

LOADS INPUT	...FOR THIS LOADING..		MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUND LOADS	ALL	DISPL	MEMBER FORCES	FOUND LOADS
no	yes	yes	yes	no	no	no	no

MAXIMUM MAST DISPLACEMENTS:

=====

ELEV ft	-----DEFLECTIONS (ft)-----			--TILTS (DEG)--		TWIST DEG
	NORTH	EAST	DOWN	NORTH	EAST	
150.0	1.513 G	1.237 J	0.011 G	1.024 G	0.835 J	-0.344 N
145.0	1.423 G	1.164 J	0.011 G	1.023 G	0.835 J	-0.344 N
140.0	1.333 G	1.090 J	0.010 G	1.021 G	0.833 J	-0.343 N
135.0	1.243 G	1.017 J	0.009 G	1.015 G	0.827 J	-0.341 N
130.0	1.155 G	0.945 J	0.008 G	1.003 G	0.817 J	-0.339 N
125.0	1.065 G	0.872 J	0.007 G	0.982 G	0.798 J	-0.315 N
120.0	0.978 G	0.801 J	0.007 G	0.945 G	0.767 J	-0.285 N
115.0	0.894 G	0.733 J	0.006 G	0.919 G	0.746 J	-0.265 N
110.0	0.814 G	0.668 J	0.005 G	0.884 G	0.718 J	-0.244 N
105.0	0.735 G	0.604 J	0.005 G	0.840 G	0.683 J	-0.224 N
100.0	0.662 G	0.545 J	0.004 G	0.786 G	0.639 J	-0.203 N

10-11119.txt

95.0	0.593 G	0.489 J	0.004 e	0.738 G	0.601 J	-0.175 N
90.0	0.530 G	0.437 J	0.004 e	0.692 G	0.564 J	-0.152 N
85.0	0.469 G	0.387 J	0.004 e	0.644 G	0.526 J	-0.133 N
80.0	0.414 G	0.342 J	0.003 e	0.597 G	0.488 J	-0.116 N
75.0	0.361 G	0.299 J	0.003 e	0.550 G	0.450 J	-0.101 N
70.0	0.313 G	0.260 J	0.003 e	0.504 G	0.413 J	-0.087 N
65.0	0.269 G	0.223 J	0.003 e	0.457 G	0.375 J	-0.075 N
60.0	0.229 G	0.191 J	0.003 e	0.411 G	0.338 J	-0.065 N
55.0	0.192 G	0.160 J	0.002 e	0.372 G	0.306 J	-0.055 N
50.0	0.159 G	0.132 J	0.002 e	0.334 G	0.276 J	-0.045 N
45.0	0.128 G	0.107 J	0.002 e	0.297 G	0.245 J	-0.037 N
40.0	0.101 G	0.084 J	0.002 e	0.259 G	0.214 J	-0.029 N
35.0	0.077 G	0.065 J	0.002 e	0.221 G	0.183 J	-0.024 N
30.0	0.058 G	0.049 J	0.001 e	0.183 G	0.152 J	-0.019 N
25.0	0.041 G	0.035 J	0.001 e	0.146 G	0.121 J	-0.015 N
20.0	0.028 G	0.023 J	0.001 j	0.109 G	0.090 J	-0.010 N
13.3	0.015 G	0.012 J	0.001 d	0.072 G	0.060 J	-0.007 B
6.7	0.005 G	-0.004 D	0.000 j	0.036 G	0.030 J	-0.003 N
0.0	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A

MAXIMUM ANTENNA AND REFLECTOR ROTATIONS:

ELEV ft	AZI deg	TYPE *BEAM DEFLECTIONS (deg).....			
			ROLL	YAW	PITCH	TOTAL
129.0	0.0	HP	-0.813 J	0.328 N	-0.999 G	0.817 J
129.0	180.0	HP	0.813 J	0.328 N	0.999 G	0.817 J
129.0	0.0	HP	-0.813 J	0.328 N	-0.999 G	0.817 J
129.0	180.0	HP	0.813 J	0.328 N	0.999 G	0.817 J

MAXIMUM TENSION IN MAST MEMBERS (kip)

ELEV ft	LEGS	DIAG	HORIZ	BRACE
150.0	0.19 M	0.30 I	0.03 S	0.00 A
145.0	1.31 M	0.76 D	0.00 G	0.00 A
140.0	3.89 U	1.49 D	0.16 I	0.00 A
135.0	7.32 M	2.01 J	0.04 I	0.00 A
130.0	13.66 M	4.40 M	0.03 T	0.00 A
125.0	23.44 M	5.93 F	0.04 I	0.00 A
120.0	34.24 M	5.80 R	0.24 R	0.00 A
115.0	46.78 M	6.34 F	0.07 A	0.00 A
110.0	59.11 M	6.52 R	0.03 S	0.00 A
105.0	73.22 M	7.01 F	0.07 A	0.00 A
100.0	83.39 M	4.02 R	0.91 S	0.00 A
95.0	91.22 M	4.08 F	0.05 A	0.00 A

ELEV	MEMBER	FORCE	TYPE	10-11119.txt	TYPE
90.0	97.37 M	3.85	R	0.00 A	0.00 A
85.0	104.40 M	3.94	F	0.04 A	0.00 A
80.0	110.31 M	3.81	R	0.01 A	0.00 A
75.0	116.83 M	3.91	F	0.03 A	0.00 A
70.0	122.55 M	3.84	R	0.00 A	0.00 A
65.0	128.73 M	3.96	F	0.03 A	0.00 A
60.0	134.34 M	3.95	R	0.01 A	0.00 A
55.0	140.28 M	4.06	F	0.02 A	0.00 A
50.0	145.79 M	4.08	R	0.01 A	0.00 A
45.0	151.57 M	4.21	F	0.02 A	0.00 A
40.0	157.02 M	4.24	R	0.01 A	0.00 A
35.0	162.67 M	4.36	F	0.02 A	0.00 A
30.0	168.03 M	4.40	R	0.02 A	0.00 A
25.0	173.57 M	4.52	F	0.02 A	0.00 A
20.0	179.70 M	4.82	R	0.02 A	0.00 A
13.3	186.86 M	4.94	F	0.00 A	0.00 A
6.7	193.70 M	5.00	R	0.02 A	0.00 A
0.0				0.00 A	0.00 A

MAXIMUM COMPRESSION IN MAST MEMBERS (kip)

ELEV ft	LEGS	DIAG	HORIZ	BRACE
150.0	-0.36 G	-0.31 C	-0.04 A	0.00 A
145.0	-1.79 G	-0.80 C	0.00 M	0.00 A
140.0	-4.76 C	-1.45 J	-0.17 U	0.00 A
135.0	-8.70 G	-2.10 C	-0.03 S	0.00 A
130.0	-15.91 G	-5.13 F	-0.04 I	0.00 A
125.0	-27.15 G	-5.18 R	-0.03 S	0.00 A
120.0	-38.16 G	-6.00 F	-0.36 L	0.00 A
115.0	-51.79 G	-6.17 R	-0.07 S	0.00 A

			10-11119.txt	
110.0	-----		-0.03 A	0.00 A
	-64.87 G	-6.68 F		
105.0	-----		-0.07 S	0.00 A
	-80.15 G	-6.88 R		
100.0	-----		-0.94 A	0.00 A
	-91.04 G	-4.25 G		
95.0	-----		-0.05 S	0.00 A
	-99.79 G	-3.93 R		
90.0	-----		0.00 S	0.00 A
	-106.54 G	-4.00 F		
85.0	-----		-0.04 S	0.00 A
	-114.43 G	-3.83 R		
80.0	-----		-0.01 S	0.00 A
	-120.98 G	-3.93 F		
75.0	-----		-0.03 S	0.00 A
	-128.33 G	-3.82 R		
70.0	-----		0.00 S	0.00 A
	-134.75 G	-3.93 F		
65.0	-----		-0.03 S	0.00 A
	-141.75 G	-3.90 R		
60.0	-----		-0.01 S	0.00 A
	-148.10 G	-4.02 F		
55.0	-----		-0.02 S	0.00 A
	-154.91 G	-4.01 R		
50.0	-----		-0.01 S	0.00 A
	-161.22 G	-4.14 F		
45.0	-----		-0.02 S	0.00 A
	-167.88 G	-4.17 R		
40.0	-----		-0.01 S	0.00 A
	-174.17 G	-4.30 F		
35.0	-----		-0.02 S	0.00 A
	-180.74 G	-4.32 F		
30.0	-----		-0.01 S	0.00 A
	-187.00 G	-4.45 F		
25.0	-----		-0.02 S	0.00 A
	-193.47 G	-4.50 F		
20.0	-----		-0.02 S	0.00 A
	-200.71 G	-4.88 F		
13.3	-----		0.00 S	0.00 A
	-209.28 G	-4.92 F		
6.7	-----		-0.02 S	0.00 A
	-217.46 G	-5.05 F		
0.0	-----		0.00 A	0.00 A

MAXIMUM INDIVIDUAL FOUNDATION LOADS: (kip)

=====

-----LOAD-----		-----COMPONENTS-----		TOTAL
NORTH	EAST	DOWN	UPLIFT	SHEAR
18.29 G	15.36 K	221.46 G	-197.00 M	18.29 G

MAXIMUM TOTAL LOADS ON FOUNDATION : (kip & kip-ft)

=====

-----HORIZONTAL-----			DOWN	-----OVERTURNING-----		TORSION
NORTH	EAST	TOTAL		NORTH	EAST	TOTAL

		@	0.0		10-11119.txt		@	0.0
30.2	25.8	30.2	40.7	2558.2	2132.2	2558.2	-7.1	
G	V	G	d	G	J	G	B	

MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES

Tower Description 150' S3R Series SD
 Customer CENTERPOINT ENERGY INC
 Project Number 10-11119
 Date 11/24/2009
 Engineer NJS

Overall Loads:			
Factored Moment (ft-kips)	2558.20	Anchor Bolt Count (per leg)	6
Factored Axial (kips)	407.7		
Factored Shear (kips)	282.3		
Individual Leg Loads:			
Factored Uplift (kips)	187		
Factored Download (kips)	221.48		
Factored Shear (kips)	130.9		
Width of Tower (ft)	3.75		
Ultimate Bearing Pressure	14		
Bearing Φ_s	0.75		
Overtuning Φ_s	0.75		
Bearing Design Strength (ksf)	8	Max. Factored Net Bearing Pressure (ksf)	2.64
Water Table Below Grade (ft)	9.9		
Width of Mat (ft)	22	Minimum Mat Width (ft)	21.2
Thickness of Mat (ft)	1.5		
Depth to Bottom of Slab (ft)	1.6		
Bolt Circle Diameter (in)	7.25		
Top of Concrete to Top of Bottom Threads (in)			
Diameter of Pier (ft)	34.5	Minimum Pier Diameter (ft)	11.2
Ht. of Pier Above Ground (ft)	3.5	Equivalent Square b (ft)	2.68
Ht. of Pier Below Ground (ft)	4.5		
Quantity of Bars in Mat	24		
Bar Diameter in Mat (in)	1		
Area of Bars in Mat (in ²)	18.85		
Spacing of Bars in Mat (in)	11.17	Recommended Spacing (in)	16
Quantity of Bars Pier	12		
Bar Diameter in Pier (in)	0.875		
Tie Bar Diameter in Pier (in)	0.6		
Spacing of Ties (in)	12		
Area of Bars in Pier (in ²)	7.22	Minimum Pier A_b (in ²)	5.09
Spacing of Bars in Pier (in)	7.36	Recommended Spacing (in)	16
f_c (ksi)	4		
f_y (ksi)	60		
Unit Wt. of Soil (pcf)	0.11		
Unit Wt. of Concrete (pcf)			
Volume of Concrete (yd ³)	30.82		

P. A10

MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES (CONTINUED)

Two-Way Shear:

Average d (in)	14
ϕV_c (klps)	686.5
$\phi V_c = \phi(2 + 4/\beta_c) f'_c{}^{1/2} b_o d$	650.3
$\phi V_o = \phi(\alpha_s d/b_o + 2) f'_c{}^{1/2} b_o d$	457.6
$\phi V_c = \phi 4 f'_c{}^{1/2} b_o d$	152.01
Shear perimeter, b_o (in)	1
β_c	1

V_u (klps)

221.3

Stability:

Resisting moment	3833.28
Overturning Design Strength (ft-k)	2764.76

Factored Overturning Moment (ft-k)

2764.76

One-Way Shear:

ϕV_c (klps)

686.5

V_u (klps)

221.3

Pier Design:

Design Tensile Strength (klps)	68.3
ϕV_n (klps)	68.3
$\phi V_c = \phi 2(1 + N_u/(500A_g)) f'_c{}^{1/2} b_w d$	68.3
V_s (klps)	0
Maximum Spacing (in)	13.09
Actual Hook Development (in)	13.00

T_u (klps)

19.7

V_u (klps)

221.3

*** $V_s \text{ max} = 4 f'_c{}^{1/2} b_w d$ (klps)

282.4

(Only if Shear Ties are Required)

Req'd Hook Development l_{dh} (in)

11.62

*** Ref. ACI 11.5.5 & 11.5.6.3

Anchor Bolt Pull-Out:

$\phi P_c = \phi \lambda (2/3) f'_c{}^{1/2} (2.8A_{SLOPE} + 4A_{FLAT})$	197.0
Pier Rebar Development Length (in)	20.56

P_u (klps)

197.0

Required Length of Development (in)

20.56

Flexure in Slab:

ϕM_n (ft-kips)	106.3
a (in)	1.26
Steel Ratio	0.00510
β_1	0.85
Maximum Steel Ratio (.75 ρ_b)	0.0214
Minimum Steel Ratio	0.0018

M_u (ft-kips)

106.3

Rebar Development in Pad (in)	20.56
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Required Development in Pad (in)

20.56

Condition	1 is OK, 0 Fails
Minimum Mat Width	1
Maximum Soil Bearing Pressure	1
Pier Area of Steel	1
Pier Shear	1
Two-Way Shear	1
Overturning	1
Anchor Bolt Pull-Out	1
Flexure	1
Steel Ratio	1
Length of Development in Pad	1
Interaction Diagram Visual Check	1
One-Way Shear	1
Hook Development	1
Minimum Mat Depth	1

P. All

04/05/10 12:09:19 ***** MASTER INQUIRY SCREEN ***** PROG RHH I024958 MIS
 SA 810 BECKMAN ST SVS ACT RES SC GPT ON 113006
 AN 051-027-265-109 0 CYC 04 ARS ACT DST HOU OFF
 NME MARTINEZ, MARY E (*) RTE 111 CLS DTE
 ORD NTE DRG AC SIC
 PCZ HOUSTON 77076 CMC 40 RSK NR PHN 713 691 0064 RAC 009

 CURR BILL: 29.10 DUE: 043010 | ESI ID: 1008901005102726510100
 PREV BAL: DUE: |
 LATE CHG: 0.00 STS: | CR: RERS AMS: N
 TOTAL AR: 0.00 AGE: 0 | KWG: ON/OFF: N

 DATE | KWR | KVR | MTN: 152972190 MTC: 148 S DLS: 5
 CURR RDG: 032510 | 27477 | | KWM: 1 KVM: 0 LOC: OB ROU: 065R
 PREV RDG: 022410 | 26784 | | SET: 121907 TEST: 121907

 SVC TO DAY CODE KWH KVA AMOUNT | SVC TO DAY CODE KWH KVA AMOUNT
 032510 29 BILL 693 29.10 | 032009 28 BILL 650 26.67
 022410 30 BILL 744 30.71 | 022009 29 BILL 611 25.38
 012510 33 BILL 844 33.91 | 012209 31 BILL 729 25.66
 122309 35 BILL 909 35.84 | 122208 33 BILL 802 27.72
 SPECIAL MESSAGES=> AMS DEPLOYED AREA | DEREGULATION RATE |SEE SPA

TRANS ID: PREMISE DATA: GLN-5361956673 CRCT- RU06 SECT-41658 FUSE-K68P

NEW BUSINESS

P&Z Agenda Item

A

ELECTION OF OFFICER

P&Z Agenda Item

B

DISCUSSION ITEMS

**ADJOURN
MEETING**