

REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT

On this 12 day of MAY, 2009, before the Fort Bend Commissioners Court came on to be heard and reviewed the accompanying notice of WOODSCODE 3, dba AMERICOM SITE DEVELOPMENT

Job Location FARMER ROAD

Dated 05/04/09 CASHIERS CK 3004519 Permit No. 83644

to make use of certain Fort Bend County property subject to, "A Revised Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas, date the 3rd day of August, 1987, recorded in Volume _____ of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Article 1436a, Vernon's Texas Civil Statues. Upon Motion of Commissioner meyers, seconded by Commissioner prestage, duly put and carried, it is ORDERED, ADJUGED AND DECREED that said notice of said above purpose is hereby acknowledged by the Commissioners Court of Fort Bend County, Texas, and that said notice be placed on record according to the regulation order thereof.

Notes:

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
 - a. 48 hours in advance of construction start up, and
 - b. When construction is completed and ready for final inspection

Mail notices to: Permit Administrator
Fort Bend County Engineering
P.O. Box 1449
Rosenberg, Texas 77471
281-633-7500

3. This permit expires one (1) year from date of permit if construction has not commenced.

By [Signature]
County Engineer

By N/A
Drainage District Engineer/Manager

Presented to Commissioners Court and approved.

Recorded in Volume 512-0A Minutes of Commissioners Court.

Clerk of Commissioners Court
By [Signature]
Deputy

COUNTY OF FORT BEND

Engineering Department

P.O. BOX 1449
Rosenberg, Texas 77471-1449

Johnny Ortega
Permit Administrator

1124 Blume Road
Phone: (281) 341-7500

PERMIT APPLICATION REVIEW FORM FOR CABLE, CONDUIT, AND POLE LINE ACTIVITY IN FORT BEND COUNTY

PERMIT NO. 083644

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

- (1) Complete Application Form.
- a. Name of road, street, and/or drainage ditch affected.
 - b. Vicinity map showing course of direction.
 - c. Plans and specifications.

- (2) Bond:
- District Attorney, approval when applicable.
 - Perpetual bond currently posted.
No. _____
Amount _____
 - Performance bond submitted.
No. _____
Amount _____
 - Cashier's Check.
No. 3004519
Amount \$5,000.00

- (3) Verbal permission given for emergencies, to start construction before approved in Commissioner's Court.
- | | |
|---|---------------|
| _____
Precinct Engineer Acknowledgment | _____
Date |
| _____
Precinct Commissioner Acknowledgment | _____
Date |

- (4) _____
Drainage District Approval when applicable

We have reviewed this project and agree it meets minimum requirements.



Johnny Ortega CFM/ Permit Administrator
(REVISED 5/30/08)

05/04/2009

Date



NOTICE TO CUSTOMERS
The purchase of an Indemnity Bond
will be required before this check
will be replaced or refunded in the
event it is lost, misplaced or stolen.

Official Check

3004519

Date: 4/30/09

Branch: 0301

REMITTER AMERICOM

**PAY
TO THE
ORDER OF**

EXACTLY **5,000 AND 00/100 DOLLARS

\$5,000.00

FORT BEND COUNTY

PERFORMANCE BOND

Gregory Sprunka
AUTHORIZED SIGNATURE

⑈0003004519⑈ ⑆113102552⑆ 10113649⑈

FVNE 4024 (F 5/06)

4.5 PER ORIGINAL

DATE	5-13-09	DOLLARS		CENTS	
CURRENCY					
COIN					
CHECKS LIST EACH SEPARATELY	3	5000			
	2	500			
	1	500			
	4				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16	5000			
	17				
	18				
	19				
	20				
	21				
	PLEASE CHECK TOTAL HERE	TOTAL	5000		

DEPOSIT TICKET

FORT BEND COUNTY CLERK
REGISTRY FUND
301 JACKSON
RICHMOND, TX 77469-3108

PROSPERITY BANK
14080 SOUTHWEST FREEWAY
SUGAR LAND, TEXAS 77478
281-269-7200

Checks and other items are received for deposit subject to the provisions of the Uniform Commercial Code of any applicable collection agreement. DEPOSITS MAY NOT BE AVAILABLE FOR IMMEDIATE WITHDRAWAL

SF



009



PROSPERITY BANK®

MEMBER FDIC

www.prosperitybank.com

YOUR DEPOSIT MAY NOT BE AVAILABLE
FOR IMMEDIATE WITHDRAWAL

Checking Deposit Receipt unless marked below

- | | |
|--|--|
| <input type="checkbox"/> SAVINGS DEPOSIT | <input type="checkbox"/> SAFE DEPOSIT RENTAL |
| <input type="checkbox"/> INSTALLMENT LOAN PMT. | <input type="checkbox"/> OTHER |
| <input type="checkbox"/> COMMERCIAL LOAN PMT. | <input type="checkbox"/> _____ |

ACCOUNT CREDITED ON DATE SHOWN

ALL ITEMS ARE RECEIVED SUBJECT TO CONDITIONS AND TERMS
STATED ON SIGNATURE CARDS CURRENTLY USED
TRANSACTION NUMBER, DATE AND AMOUNT
OF DEPOSIT ARE SHOWN.



Transaction Receipt

05/14/2009 2:38 PM
 Br# 111 Tr# 103 Seq# 31
 Account XXXXX
 DDE Deposit 5,000.00

We appreciate your business

[Home](#)



Confirmation

Account: 

DIANNE WILSON
General Fund

Amount of ACH Transfer: \$ 5,000.00

Type of Transaction: Deposit

Today's Date: 05/15/2009

Current Time: 01:56:31 PM (Eastern)

Effective Date: 05/18/2009

Confirmation Number: 05150085

Would you like to make another ACH Transfer?

Yes

No

Submit

ENT'D MAY 18 2009

ERIK MANNING



FORT BEND COUNTY CLERK

301 Jackson St., Richmond, TX 77469-3108
(281) 341-8685 • Fax (281) 341-8697 • Fax (281) 341-4520
Fax (281) 341-8681 • Fax (281) 341-8669

DIANNE WILSON
COUNTY CLERK

LOGIC FAX COVER SHEET FOR DEPOSITS

Logic fax 214-953-8878

DATE: 5-15-09

TO: LOGIC

FROM: FORT BEND COUNTY CLERK

FAX NO.: (281) 341-8697

NUMBER OF PAGES: 1 (INCLUDING COVER SHEET)

MESSAGE: THIS IS TO REQUEST THE ACH DEPOSIT(S) AS FOLLOWS:

PERMIT #	ACCOUNT NAME	AMOUNT
<u>83644</u>	<u>WOODSCODE 3</u>	<u>5000.00</u>

IF YOU DO NOT RECEIVE THE COMPLETE MESSAGE, PLEASE CALL:

NAME: Sherry Fisk PHONE NO.: 281-344-3952

CONFIRMATION NUMBER 05150085 DATE 5-18-09

ATTN: BUDDY, ALREADY DONE ON THE INTERNET

ENT'D MAY 18 2009
ERIK MANNING

** Transmit Conf. Report **

P.1

May 15 2009 13:10

Fax/Phone Number	Mode	Start	Time	Page	Result	Note
S002 LOGIC	NORMAL	15,13:10	0'15"	1	# O K	



FORT BEND COUNTY CLERK

301 Jackson St., Richmond, TX 77469-3108
 (281) 341-8685 • Fax (281) 341-8697 • Fax (281) 341-4520
 Fax (281) 341-8681 • Fax (281) 341-8669

DIANNE WILSON
 COUNTY CLERK

LOGIC FAX COVER SHEET FOR DEPOSITS

Logic fax 214-953-8878

DATE: 5-15-09

TO: LOGIC

FROM: FORT BEND COUNTY CLERK

FAX NO.: (281) 341-8697-

NUMBER OF PAGES: 1 (INCLUDING COVER SHEET)

MESSAGE: THIS IS TO REQUEST THE ACH DEPOSIT(S) AS FOLLOWS:

PERMIT #	ACCOUNT NAME	AMOUNT
<u>83644</u>	<u>WOODSCODE 3</u>	<u>5000.00</u>

IF YOU DO NOT RECEIVE THE COMPLETE MESSAGE, PLEASE CALL:

NAME: Sherry Fisk PHONE NO.: 281-344-3952

DEPOSIT

PERMIT # 83644

STYLE: Woodscore 3

NAME PUT INTO LOGIC AS: Woodscore 3

DEPOSIT AMOUNT: \$5,000.00

DATE RECEIVED: 5/12/2009

DATE TRANSFERRED TO LOGIC: 5/15/2009

**FORT BEND COUNTY ENGINEERING
 PERMIT DEPARTMENT
 CONSTRUCTION OF DRIVEWAYS AND CULVERTS ON COUNTY EASEMENTS AND RIGHT OF WAYS
 COMMERCIAL PIPE PERMIT APPLICATION
 P.O. BOX 1449 • 1124 BLUME ROAD
 ROSENBERG, TX 77471
 (Phone) 281-633-7502 or 7503 • (Fax) 281-342-7366**

APPLICANT INFORMATION

Application No. 83644
 (County Use Only)

Applicant Name Woodscode 3, Inc. dba Americom Site Development
 Applicant Mailing Address 555 SH 250 West
 City New Waverly State Texas Zip 77358
 Work Phone 936-344-9052 Daytime Phone 936-537-1897
 Property Owner's Name Old South Plantation, Inc. - Gary Pochyla Phone 281-342-3825
 Property Owner's Mailing Address 2116 Thompson, #111 (P.O. Box 522)
 City Richmond State Texas Zip 77406

LOCATION OF PROPERTY

Subdivision Randall Jones League survey, A-42, Track-5
1/2 Farmer Rd Sec _____ Lot _____ Blk _____
 Physical Address 2433 Skinner Road, Richmond, Texas 77469

(ATTACH A SITE MAP)

SITE USE

Driveway Curb & Gutter Section _____ Driveway - Open Ditch Section YES
 Culvert Only _____

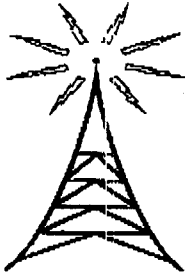
DRIVEWAY REQUIREMENTS

Length 20' minimum and 40' maximum Number of drives 1
 (See - Fort Bend County Procedures to be followed for Commercial Driveway, and Median Openings or Modifications)
 Available on website www.co-fort-bend.tx.us

Does project comply with Fort Bend County Lighting Regulation Yes (X) No ()
 (See- Fort Bend County Outdoor Lighting Regulation on website www.co.fort-bend.tx.us)

- By signing and submitting this permit application, I am stating that I am the owner of this property and I am aware of and agree to abide by the Fort Bend County Regulations of Subdivisions and I am aware of Section 2, Item F in the Permits for the Construction of Driveways & Culverts on County Easements and Right of Ways in Fort Bend County, and am responsible to obtain all other required permits associated with the above mentioned property. Driveway and Pipe Permits shall provide that construction pursuant to the permit will be commenced within six months and be completed within nine months from the date of the permit and that fees collected for said permits shall not be refundable or transferable. I further understand the permit fee, in the form of CASH or PERSONAL CHECK or COMPANY CHECK or a CASHIERS CHECK or MONEY ORDER payable to FORT BEND COUNTY, must be attached.
- The undersigned applicant, agent or attorney hereby certifies to Commissioners' Court to be strictly bound to Commissioners' Court to construct the driveway and/or culvert in strict conformity with the plans, specifications, terms, provisions and conditions of the permit and any other written material incorporated by reference in this application.
- Other permits may be required for development. Please contact the Fort Bend County Road & Bridge Department for pipe sizing or the Fort Bend County Health Department for information on On-Site Sewage Facility permits prior to planning construction.
- Failure to possess or obtain required permits will result in legal action against the property owner as allowed by law.

Cindy Brzymialkiewicz 04/28/2009
 Signature of Applicant, Agent or Attorney Date
Cindy Brzymialkiewicz
 Printed Name



AMERICOM

A

WOODS CODE 3 INC. COMPANY
555 SH 150 West New Waverly, Tx 77358
E-mail: rp.americom@teleshare.net
Office: 936-344-9052 Fax: 936-344-9042

Plan of Traffic Control: Pecan Grove Site Richmond, Tx

- 1. Men at work sign approximately 100 feet from drive –
with cones**
- 2. 2 men flagging traffic**



SITE
PECAN GROVE SITE

811 Address: *not*
2433 SKINNER ROAD
RICHMOND, TEXAS 77469
LAT: N 28° 37' 48.17"
LONG: W 95° 44' 41.76"

THERE WILL BE NO CHANGES
IN THE CONSTRUCTION PRODUCED
BY THESE DOCUMENTS WITHOUT
THE APPROVAL OF VERIZON WIRELESS
AND AXIS ENGINEERING.

PROPRIETARY INFORMATION
NOT FOR USE OR DISCLOSURE
OUTSIDE VERIZON
EXCEPT UNDER WRITTEN AGREEMENT

CONTRACTOR RESPONSIBILITIES

1. THE CONTRACTOR SHALL THOROUGHLY READ AND UNDERSTAND ALL DOCUMENTS CONCERNING THIS PROJECT, INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION AND APPLICABLE PERMIT DRAWINGS, TOWER DRAWINGS, SHELTER DRAWINGS AND ALL APPLICABLE REGULATIONS.
2. THE CONTRACTOR SHALL NOTIFY AXIS ENGINEERING OF ANY CONFLICTS, OMISSIONS, DISCREPANCIES WITHIN OR BETWEEN DRAWINGS OR DOCUMENTS, OR DIMENSIONS DISCREPANCY WITHIN OR BETWEEN DRAWINGS OR DOCUMENTS, IN WRITING TO THE EXISTING CONDITIONS ON SITE PRIOR TO BEGINNING ANY WORK.
3. THE CONTRACTOR IS TO COMPLETE ALL WORK IN ACCORDANCE WITH ACCEPTED INDUSTRY STANDARDS AND THE MOST RECENT VERSION OF ALL APPLICABLE CODES.

EQUIPMENT SHELTER NOTES:

1. BUILDING SHALL BE DELIVERED AND SET BY VERIZON WIRELESS. SITE CONTRACTOR SHALL PROVIDE ACCESS FOR THE DELIVERY OF THE EQUIPMENT SHELTER. SITE CONTRACTOR IS ALSO RESPONSIBLE FOR THE FOLLOWING:
 - A. SITE CONTRACTOR SHALL CROUT AROUND PERIMETER OF BUILDING, BETWEEN BUILDING AND FOUNDATIONS SLAB WITH NON-SHRINKING GROUT.
 - B. SITE CONTRACTOR SHALL INSTALL SHELTER CANOPY OVER DOOR. (CANOPY SUPPLIED BY BUILDING MANUFACTURER)
2. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL WORK IN BUILDING.

SITE NOTES:

1. SITE CONTRACTOR IS TO SECURE BRUSH & MATERIAL UNDER PARALLEL BOUNDARIES AS SHOWN ON SITE PLAN. ALL EXCESS MATERIAL IS TO BE REMOVED FROM THE SITE (NO EXCEPTIONS). (DO NOT CLEAR BEYOND TRACT BOUNDARIES)
2. FENCING AND GATE IS TO AS SPECIFIED IN THESE DOCUMENTS. ALL PAVING INSTALLED IS TO BE BY SWAPPING 3" OF EXISTING GRADE COMPACTING THE SUB GRADE TO 84% STD. PROCTOR, THEN INSTALLING LIMESTONE BASE FOR COMPACTOR, AS SHOWN IN THESE DOCUMENTS.
3. SITE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION ACCESS AND ACCESS TO THE SITE FOR VERIZON WIRELESS EQUIPMENT INSTALLATIONS.
4. SITE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETION OF THE ENTIRE PROJECT. VERIZON WIRELESS WILL PROVIDE THE FOLLOWING:
 - A. ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE PROJECT SITE WITH ELECTRICAL CONTRACTOR.

REQUIRED INSPECTION NOTES:

- GENERAL NOTES FOR CONSTRUCTION OF PERMANENT SHELTER (ALL INFORMATION IS TO BE USED AS A REFERENCE ONLY. ALL INFORMATION IS TO BE USED AS A REFERENCE ONLY. ALL INFORMATION IS TO BE USED AS A REFERENCE ONLY.)
- (NO EXCEPTIONS) ALL CONCRETE MIX DESIGNS MUST BE SUBMITTED TO AXIS ENGINEERING 48 HOURS PRIOR TO CONSTRUCTION (MINIMUM). IF DIRECT TO CONSTRUCTION (MINIMUM) 48 HOURS PRIOR TO CONSTRUCTION. NOTIFY AXIS ENGINEERING (713-460-8003) OF CONSTRUCTION SCHEDULE.

URGENT NOTE FOR PERMANENT CONSTRUCTION:
IF ALL WORK IS BEING STOPPED FOR MORE THAN 30 DAYS, THE CONTRACTOR SHALL NOTIFY VERIZON WIRELESS AND AXIS ENGINEERING.

UNDERGROUND SERVICE ALERT
CALL 811
1-800-344-8877
CALL TX 11 CALL
1-800-245-4645

NO WORKING DAYS BEFORE YOU DIG

GENERAL NOTES

1. THE CONTRACTOR SHALL SUPERVISE AND DIRECT ALL WORK, USING HIS BEST CONSTRUCTION KNOWLEDGE, METHODS, TECHNIQUES, PROCEDURES AND SEQUENCES FOR COMPLETING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.
4. THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION AND DAMAGE TO NEW AND EXISTING UTILITIES, STRUCTURES, AND EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.
7. THE CONTRACTOR SHALL SAFEGUARD THE OWNER'S PROPERTY DURING CONSTRUCTION AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE JOB IS IN PROGRESS AND UNTIL THE JOB IS COMPLETED PER CHAPTER 44 OF THE U.S.C.
10. THE CONTRACTOR DURING CONSTRUCTION SHALL PROVIDE TEMPORARY WATER, WASTE, AND TOILET FACILITIES AS REQUIRED BY THE CITY OR COUNTY, AND THE MOST RECENT OF ALL OTHER GOVERNING CODES, ALONG WITH THE GOVERNING RESTRICTIVE CODES.
11. ALL CONSTRUCTION WORK SHALL CONFORM TO THE MOST RECENT VERSION OF THE U.S.C. AND THE MOST RECENT OF ALL OTHER GOVERNING CODES, ALONG WITH THE GOVERNING RESTRICTIVE CODES.
12. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH ALL LOCAL CODE REGULATIONS AND STATE DEPARTMENT OF INDUSTRIAL REGULATIONS AND DIVISION OF INDUSTRIAL SAFETY (DISA) REQUIREMENTS. DRAWINGS HAVE PRECEDENCE OVER SCALE DRAWINGS. SCALE AND DETAIL ACCURACY OF ALL DIMENSIONS IN THE FIELD, UNLESS SPECIFICALLY NOTED, SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.
13. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS OR DISCREPANCIES WITHIN OR BETWEEN DRAWINGS OR DOCUMENTS BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.
14. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS OR DISCREPANCIES WITHIN OR BETWEEN DRAWINGS OR DOCUMENTS BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.
15. EXISTING ELEVATIONS AND LOCATIONS TO BE JOINED BY PROPOSED CONSTRUCTION SHALL BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT MODIFICATIONS CAN BE MADE BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.

SITE DIRECTIONS

From the Copperfield switch take Hwy. 290 east to the Beltway. Go south on the Beltway to the Westpark Tollway. Take the Tollway west to the Grand Parkway(SR99). Go south on the Parkway to the Farmer Rd. exit. Go south(right) on Farmer 2.3 miles(this turns into Skinner) and the site is on the right behind a fire station.

CONSULTANTS:

ENGINEER:
AXIS ENGINEERING, INC
6200 ROHWAY
SUITE 140
HOUSTON, TEXAS 77040
Office: 713-690-5037
www.axisengineering.net

GENERAL CONTRACTOR:
VERIZON WIRELESS
14123 CHEROKEE RD.
HOUSTON, TEXAS 77085
(713) 507 1851
fax: (713) 507 1618

SURVEYOR:
CONSON SURVEYING
SUITE 103
HOUSTON, TEXAS 77081
713-881-0275

PROJECT DESCRIPTION

THESE DOCUMENTS ARE PART OF AN APPLICATION TO DEVELOP AN: UNMANNED COMMUNICATIONS FACILITY CONSISTING OF AN EQUIPMENT BUILDING, CONNECTING CABLES, DIRECTIONAL ANTENNAS AND GPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.

PROJECT INFORMATION

JURISDICTION: COUNTY OF FORT BEND
CODE: ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITION OF THE LATEST BC AND ALL LOCAL ORDINANCES AND REGULATIONS WHICH THE PROJECT IS BEING CONSTRUCTED.
INDUSTRIAL CODE (ANSI): OCCUPATIONAL SAFETY AND HEALTH STANDARDS (OSHA)
NATIONAL ELECTRICAL CODE (NEC): UNIFORM MECHANICAL CODE
U: NONE
NON-COMBUSTIBLE (IBC): PROPERTY DESCRIPTION:

ELECTRICAL PROVIDER:

ELECTRICAL PROVIDER: RELIANT ENERGY
TELCO PROVIDER: TBD

SHEET INDEX

- SURVEY**
- C.1 OVERALL SITE PLAN & ELEVATION
 - C.2 ENLARGED SITE PLAN & ELEVATION
 - C.3 DRIVEWAY DETAILS
 - AT.1 ANTENNA INFORMATION
 - S.1 TOWER FOUNDATION
 - S.2 SHELTER FOUNDATION
 - D.1 GENERAL DETAILS
 - G.1 SHELTER GROUNDING PLANS AND DETAILS
 - G.2 GROUNDING DETAILS
 - G.3 TOWER GROUNDING DETAILS
 - E.1 ELECTRICAL PLAN
 - E.2 POWER RACK DETAILS
 - N.1 GENERAL NOTES & SPECIFICATIONS

VERIZON WIRELESS
14123 CHEROKEE RD.
HOUSTON, TEXAS 77085
(713) 507 1650
fax (713) 507 1618

COVER SHEET - GENERAL INFORMATION
PECAN GROVE SITE
2433 SKINNER ROAD
RICHMOND, TEXAS 77469

AXIS ENGINEERING, INC
6200 ROHWAY
SUITE 140
HOUSTON, TEXAS 77040
PHONE: 713-690-5037
WWW.AXISENGINEERING.NET

01-081209-007

VERIZON WIRELESS
PECAN GROVE

LINE	BEARING	DISTANCE
L1	S 02°26'00" E	60.00'
L2	S 87°46'17" W	60.00'
L3	N 02°26'00" W	59.41'
L4	N 82°41'32" E	6.71'
L5	N 87°46'17" E	53.31'
L6	S 02°26'00" E	170.00'
L7	S 02°26'00" E	30.00'
L8	N 02°26'00" W	200.00'
L9	N 87°46'17" E	30.00'

TEXANA PLANTATION
SECTION TWO
SLIDE No. 1767 B FBCPR

(3)

LOT 3
LESSEE'S LAND SPACE
0.0826 ACRE
3598 SQ. FT.
SEE NOTE 10
16' UE & AE
SLIDE No. 1767 B
FBCPR

LOT 2
LESSEE'S LAND SPACE
0.0826 ACRE
3598 SQ. FT.
SEE NOTE 10
16' UE & AE
SLIDE No. 1767 B
FBCPR

RESERVE "D"
RESTRICTED TO
OPEN SPACE AND
LANDSCAPING
0.1777 AC

RESERVE "B"
RESTRICTED TO
WATER PLANT
1.0228 AC

16' UE & AE
SLIDE No. 1767 B
FBCPR

55' (1.1596 AC) DEDICATED
FOR ROW PER PLAT

LESSEE'S LAND SPACES
POB
LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
END 5/8" IR (W/ CAP STAMPED
"1535/4035")

LESSEE'S LAND SPACES
POB
LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
"5"

LESSEE'S RIGHT-OF-WAY
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

REMAINDER OF A
CALLED 119.34 ACRE TRACT
TO OLD SOUTH PLANTATION, INC.
BY SPECIAL WARRANTY DEED
CF No. 9722234
FBCOPRRP

CITY OF RICHMOND
FIRE STATION THREE
PLAT No. 20080077
FBCPR

MATCHLINE "A"

LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

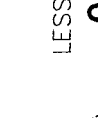
LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

LESSEE'S RIGHT-OF-WAY
FOR INGRESS / EGRESS
AND UTILITY ESMT
0.3822 ACRE
16,650 SQ FT
SEE NOTE 10

LAND TITLE SURVEY
OF
PECAN GROVE SITE
BEING
0.0826 ACRE
OUT OF THE
RANDALL JONES LEAGUE, A-42
FORT BEND COUNTY, TEXAS
JANUARY 2009



COTTON SURVEYING
COMPANY
6836 Buffton, Suite 103
Houston, Texas 77061
Office (713) 881-0276

NORTH
SCALE: 1" = 30'

SEE NOTE 10

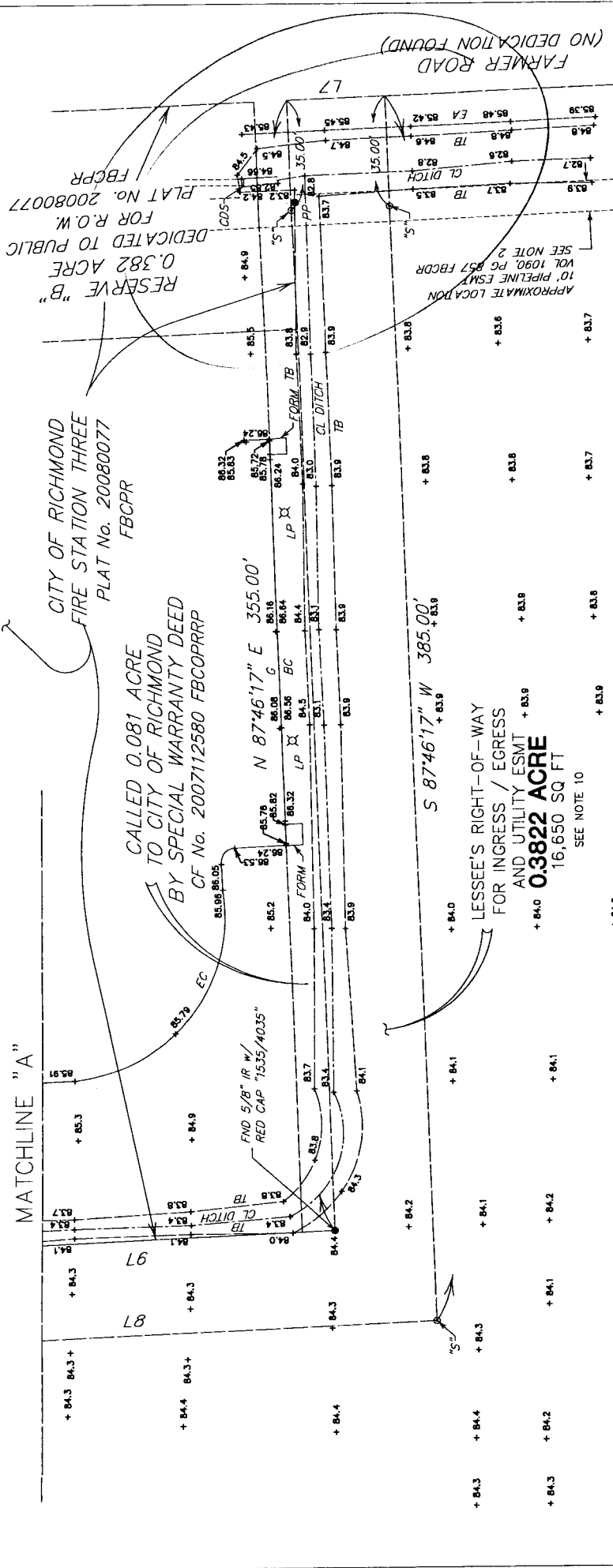
SEE NOTE 10

SEE NOTE 10

SEE NOTE 10

SEE NOTE 10

SEE NOTE 10



REMAINDER OF A
 CALLED 119.34 ACRE TRACT
 TO OLD SOUTH PLANTATION, INC.
 BY SPECIAL WARRANTY DEED
 CF No. 9722234
 FBCOPRRP

LINE	BEARING	DISTANCE
L1	S 02°26'00" E	60.00'
L2	S 87°46'17" W	60.00'
L3	N 02°26'00" W	59.41'
L4	N 82°41'32" E	6.71'
L5	N 87°46'17" E	53.31'
L6	S 02°26'00" E	170.00'
L7	S 02°26'00" E	30.00'
L8	N 02°26'00" W	200.00'
L9	N 87°46'17" E	30.00'

LAND TITLE SURVEY
 OF
PECAN GROVE SITE
 BEING
0.0826 ACRE
 OUT OF THE
RANDALL JONES LEAGUE, A-42
 FORT BEND COUNTY, TEXAS
 JANUARY 2009



COTTON SURVEYING
 COMPANY
 8555 Gulfport, Suite 103
 Houston, Texas 77061
 Office (713) 881-0276

LEGEND
 BC BACK OF CURB
 CD CENTERLINE DITCH
 CDS CONCRETE DITCH STRUCTURE
 CFS CLERK'S FILE
 CL CENTERLINE
 EA EDGE OF ASPHALT
 EC EDGE OF CONCRETE
 FBCDR FORT BEND COUNTY DEED RECORDS
 FBCMR FORT BEND COUNTY MAP RECORDS
 FBCOPRRP FORT BEND COUNTY OFFICIAL PUBLIC RECORDS OF REAL PROPERTY
 FBCPL FORT BEND COUNTY PLAT RECORDS
 FL FINISHED FLOOR ELEVATION
 FND FLOW LINE
 G GUTTER
 LP LIGHT POLE/POST
 No. NUMBER
 OHP OVERHEAD POWER
 PFC POINT FOR CORNER
 PG PAGE
 POB POINT OF BEGINNING
 PP POWER POLE
 R.O.W. RIGHT OF WAY
 RCP REINFORCED CONCRETE PIPE

LEGEND
 "S" SET 5/8-INCH IRON ROD (WITH CAP STAMPED "COTTON SURVEYING")
 TB TOP BANK DITCH
 VOL VOLUME
 WF WOOD FENCE



NORTH
 SCALE: 1" = 30'

0.3822 ACRE
LESSEE'S RIGHT OF WAY FOR INGRESS / EGRESS
AND UTILITIES

STATE OF TEXAS
COUNTY OF FORT BEND

A METES AND BOUNDS description of a 0.3822 acre tract of land (16,650 square feet, square footage based on the bearings and distances described herein) in the Randall Jones League, Abstract No. 42, Fort Bend County, Texas; being a portion of the remainder of a called 119.34 acre tract of land as described in Special Warranty Deed to Old South Plantation, Inc., recorded in Clerk's File No. 9722234 of the Fort Bend County Official Public Records of Real Property, said 0.3822 acre tract being more particularly described as follows with all bearings being based on the Texas Coordinate System, South Central Zone, NAD 83 as obtained with Real Time Kinematics Global Positioning Equipment;

COMMENCING at a found 5/8-inch iron rod (with cap stamped "535/4035") at the northwest corner of the City of Richmond Fire Station Three, plot of which is recorded under Plat Number 20080077 of the Fort Bend County Plat Records, being in the south line of Lot 3, Block 3 of Texana Plantation Section Two, plot of which is recorded under Slide Number 1767B of the Fort Bend Plat Records;

THENCE, South 02°26'00" East, along the west line of said City of Richmond Fire Station Three, 60.00 feet to a set 5/8-inch iron rod (with cap stamped "Cotton Surveying") for the POINT OF BEGINNING of the herein described tract;

THENCE, South 02°26'00" East, continuing along the west line of said City of Richmond Fire Station Three and the west line of a called 0.081 acre tract described in Special Warranty Deed to City of Richmond, recorded in Clerk's File No. 2007112580 of the Fort Bend County Official Public Records of Real Property to a found 5/8-inch iron rod (with cap stamped "535/4035") marking the southwest corner of said 0.081 acre tract;

THENCE, North 87°46'17" East, at a distance of 320.00 feet passing a set 5/8-inch iron rod (with cap stamped "Cotton Surveying") in the west occupied right-of-way line of Farmer Road (no dedication found), continuing in all a total distance of 355.00 feet to a point for corner at the centerline of said Farmer Road;

THENCE, South 02°26'00" East, with the centerline of said Farmer Road 30.00 feet to a point for corner;

THENCE, South 87°46'17" West, at a distance of 35.00 feet passing a set 5/8-inch iron rod (with cap stamped "Cotton Surveying") in the said west occupied right-of-way line of Farmer Road (no dedication found), continuing in all a total distance of 355.00 feet to a set 5/8-inch iron rod (with cap stamped "Cotton Surveying") for corner;

THENCE, North 02°26'00" West, along a line that is 30.00 feet west of and parallel to the west lines of the aforementioned 0.081 acre tract and City of Richmond Fire Station Three, 200.00 feet to a set 5/8-inch iron rod (with cap stamped "Cotton Surveying") for corner in the south line of a 0.0826 acre tract of land;

THENCE, North 87°46'17" East, along the south line of the 0.0826 acre tract of land, 30.00 feet to the POINT OF BEGINNING, CONTAINING 0.3822 of an acre of land in Fort Bend County, Texas as shown on Drawing No. 6804 (S) in the offices of Cotton Surveying Company, Houston, Texas.

0.0826 ACRE
LESSEE'S LAND SPACE

STATE OF TEXAS
COUNTY OF FORT BEND

A METES AND BOUNDS description of a 0.0826 acre tract of land (3,598 square feet, square footage based on the bearings and distances described herein) in the Randall Jones League, Abstract No. 42, Fort Bend County, Texas; being a portion of the remainder of a called 119.34 acre tract of land as described in Special Warranty Deed to Old South Plantation, Inc., recorded in Clerk's File No. 9722234 of the Fort Bend County Official Public Records of Real Property, said 0.0826 acre tract being more particularly described as follows with all bearings being based on the Texas Coordinate System, South Central Zone, NAD 83 as obtained with Real Time Kinematics Global Positioning Equipment;

BEGINNING at a found 5/8-inch iron rod (with cap stamped "535/4035") at the northwest corner of the City of Richmond Fire Station Three, plot of which is recorded under Plat Number 20080077 of the Fort Bend County Plat Records, being in the south line of Lot 3, Block 3 of Texana Plantation Section Two, plot of which is recorded under Slide Number 1767B of the Fort Bend Plat Records;

THENCE, South 02°26'00" East, along the west line of said City of Richmond Fire Station Three, 60.00 feet to a set 5/8-inch iron rod (with cap stamped "Cotton Surveying") for corner;

THENCE, South 87°46'17" West, 60.00 feet to a set 5/8-inch iron rod (with cap stamped "Cotton Surveying") for corner;

THENCE, North 02°26'00" West, 59.41 feet to a set 5/8-inch iron rod (with cap stamped "Cotton Surveying") for corner in the south line of Lot 2, Block 3 of the aforementioned Texana Plantation Section Two, from which a found 1-inch iron pipe marking the southwest corner of said Lot 2 bears South 82°41'32" West, 186.10 feet;

THENCE, North 82°41'32" East, along the south line of said Lot 2, 6.71 feet to a found 1-inch iron pipe for corner marking the southeast corner of Lot 2, common with the southwest corner of said Lot 3 both in Block 3 of said Texana Plantation Section Two;

THENCE, North 87°46'17" East, 53.31 feet to the POINT OF BEGINNING, CONTAINING 0.0826 of an acre of land in Fort Bend County, Texas as shown on Drawing No. 6804 (S) in the offices of Cotton Surveying Company, Houston, Texas.

LAND TITLE SURVEY
OF
PECAN GROVE SITE
BEING
0.0826 ACRE
OUT OF THE
RANDALL JONES LEAGUE, A-42
FORT BEND COUNTY, TEXAS
JANUARY 2009



COTTON SURVEYING
COMPANY
8896 Gultor, Suite 105
Houston, Texas 77061
Office (713) 981-0275

GENERAL NOTES:

1. Reference to Abstractor's Certificate prepared by Texas Abstract Services, Control No. 15581, dated December 16, 2008. No additional research for easements or encumbrances was performed by Cotton Surveying Company.

2. The above referenced Abstractor's Certificate mentions a Right-of-Way Easement to Wellhead Ventures Corp., recorded in Volume 1090, Page 857 of the Fort Bend County Deed Records. This easement document includes a centerline sketch for a ten-foot wide easement. The easement is located, as per the sketch, along the east line of the parent tract. The easement is shown to be adjacent to the east occupied right-of-way of Skinner Road. An approximate location of this easement is shown hereon. No visible indications or markings (pipeline markers) were found at the time of the survey. An Affidavit of Cessation of Use of Pipeline recorded under Clerk's File No. 2004156936 of the Fort Bend County Official Public Records of Real Property, recorded December 30, 2004, states that the easement was ceased to be used sometime before 1990 and has not been used since such time. Therefore the easement does not affect the Lessee's Right-of-Way for Ingress / Egress and the Lessee's Land Space. However, there may still be physical remains of the pipe that may affect the Lessee's Right-of-Way for Ingress / Egress.

3. The above referenced Abstractor's Certificate mentions a General Utility Easement recorded under Clerk's File No. 9871909 of the Fort Bend County Official Public Records of Real Property. This easement is located approximately 450 feet west of the Lessee's Land Space and therefore does not affect the Lessee's Land Space or the Lessee's Right-of-Way for Ingress / Egress.

4. The above referenced Abstractor's Certificate mentions an Agreement providing Reciprocal Access Easements executed by and between Old South Plantation, Inc. and FM 359 TX CVS, L.L.C., recorded under Clerk's File No. 2005068052 of the Fort Bend County Official Public Records of Real Property. This easement pertains to a portion of the parent tract that is located approximately 1,300 feet southwest of the Lessee's Land Space and therefore does not affect the Lessee's Land Space or the Lessee's Right-of-Way for Ingress / Egress.

5. Bearings shown hereon are based on Texas Coordinate System, South Central Zone, NAD 83.

6. This survey does not provide any determination concerning wetlands, fault lines, toxic waste or any other environmental issues. Such matters should be directed by the client or prospective purchaser to an expert consultant.

7. According to Map No. 48157C0115U of the Federal Emergency Management Agency's Flood Insurance Rate Maps for Fort Bend County, Texas and incorporated areas, dated January 3, 1997, the subject tract is situated within: Shaded Zone X*, defined as areas of 500-year flood; areas of 100-year flood with average depths of less than 1-foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

The FEMA website (www.msc.fema.gov) was checked on December 31, 2008. On this date four LOMC were reported, none of which are located on the subject tract.

This flood statement does not imply that the property or structures thereon will be free from flooding or flood damage. On rare occasions floods can and will occur and flood heights may be increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor.

8. Research for Adjoiner Tracts was performed by Texas Abstract Services.

9. Fences shown hereon are graphic only, with dimensional ties shown at specific locations where they were physically measured. The fence line may meander between said measured locations. The dimensions showing the distance between the fence and the property line also indicates which side of the property line the fence is on.

10. The square footage totals as shown hereon are based on the mathematical closure of the courses and distances reflected on this survey. It does not include the tolerances that may be present due to position accuracy of the boundary monuments shown hereon. The square footage shown hereon has an accuracy of ± 1 square feet. This is based on the calculations of area standards and the Manual of Practice for Land Surveying in the State of Texas as published by the Texas Society of Professional Land Surveyors for a suburban tract of land.

11. The surveyor has not been provided with construction plans showing the location of underground utilities. Underground utilities may exist which are not shown hereon.

12. Latitude, longitude and elevation were obtained with global positioning equipment and are based on Fort Bend County LIDAR Aerial Control Points. These Control Points are based on National Geodetic Survey Mark Designation - HGCS 66 and HGCS 68. Specific data for these points can be found at <http://www.cfs.com/FortBend.tx/Documents.htm>.

13. Temporary Benchmark "A" being a cut square on top of a reinforced concrete pipe located approximately 122 feet southwest of the northwest corner of Lot 5 of Block 7 in Pecan Grove Plantation Section 15. Elevation = 84.66 feet, NAVD 88, 2001 Adjustment.

14. Temporary Benchmark "B" being a cut square in the base of a light pole located near the northwest corner of the fire station. Elevation = 89.22 feet, NAVD 88, 2001 Adjustment.

15. Visible improvements/utilities were located with this survey; no subsurface probing, excavation or exploration was performed for this survey.

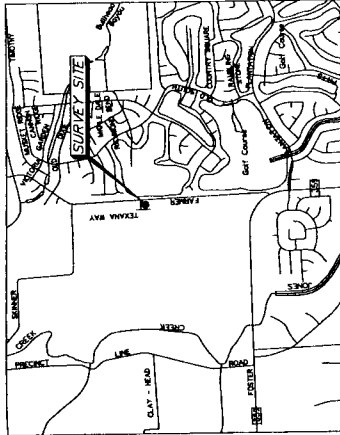
16. The above referenced Abstractor's Certificate mentions a Memorandum of Seismic and Lease Option Agreement dated June 10, 1998 (expired June 10, 1999) recorded under Clerk's File No. 9850608 of the Fort Bend County Official Public Records of Real Property. This agreement included the parent tract, and therefore does affect the Lessee's Land Space and Lessee's Right-of-Way for Ingress.

17. The above referenced Abstractor's Certificate mentions a Memorandum of Seismic and Lease Option Agreement dated December 10, 2003 (expired June 10, 2005) recorded under Clerk's File No. 2004152091 of the Fort Bend County Official Public Records of Real Property. This agreement included the parent tract, and therefore does affect the Lessee's Land Space and Lessee's Right-of-Way for Ingress.

(a) This survey drawing is based upon an on-the-ground survey made by the undersigned on December 30, 2008, and as to matters of record relies upon the documents listed in the Abstractor's Certificate Control No. 15581, prepared by Texas Abstractors Services and certified through December 11, 2008, which includes, and is limited to, the Lessee's Land Space and the Lessee's Right-of-Way for Ingress / Egress and Utilities herein collectively termed, the "Property", as shown and as described on this drawing (b) this survey accurately shows (1) the location of any buildings, structures and other improvements situated on or within the Property (2) the facts found by the undersigned at the time of said survey (3) the courses and measured distances of the perimeter boundaries of the Property as described and shown on this survey, and (4) all setback lines, encroachments, easements and rights-of-way crossing, abutting or affecting the Property, as shown on the Abstractor's Certificate or otherwise known to or observed by the undersigned, along with any recording information for such setback lines, encroachments, easements and rights-of-way; (c) the area of the Property shown hereon is accurate to the nearest square foot, and there are no discrepancies, conflicts or shortages in area or boundary lines; (d) the field notes attached to this survey accurately state the courses and distances found in performing the on-the-ground survey; (e) the notes listed on the survey are true and correct (f) except as shown on the survey drawing, there are no (1) visible easements or rights-of-way across or abutting or affecting the Property (2) easements or rights-of-way across or abutting or affecting the Property or onto easements, streets, or alleys, advised (3) visible encroachments from the Property onto an adjacent property or onto easements, streets, or alleys, by any of the building structures or other improvements, or (4) visible encroachments on the Property by buildings, structures or other improvements situated on adjoining property; (g) Access to the Lessee's Land Space will be from Farmer Road to the Lessee's Right-of-Way for Ingress / Egress and Utilities, thence along the Lessee's Right-of-Way for Ingress / Egress and Utilities to the Lessee's Land Space; (h) this professional service conforms to (1) the scope of work as requested by Verizon Wireless on a site visit and (2) the current Texas Society of Professional Surveyors Standards and Specifications for a Category 1A, Condition II Survey.

Surveyed: December 30, 2008

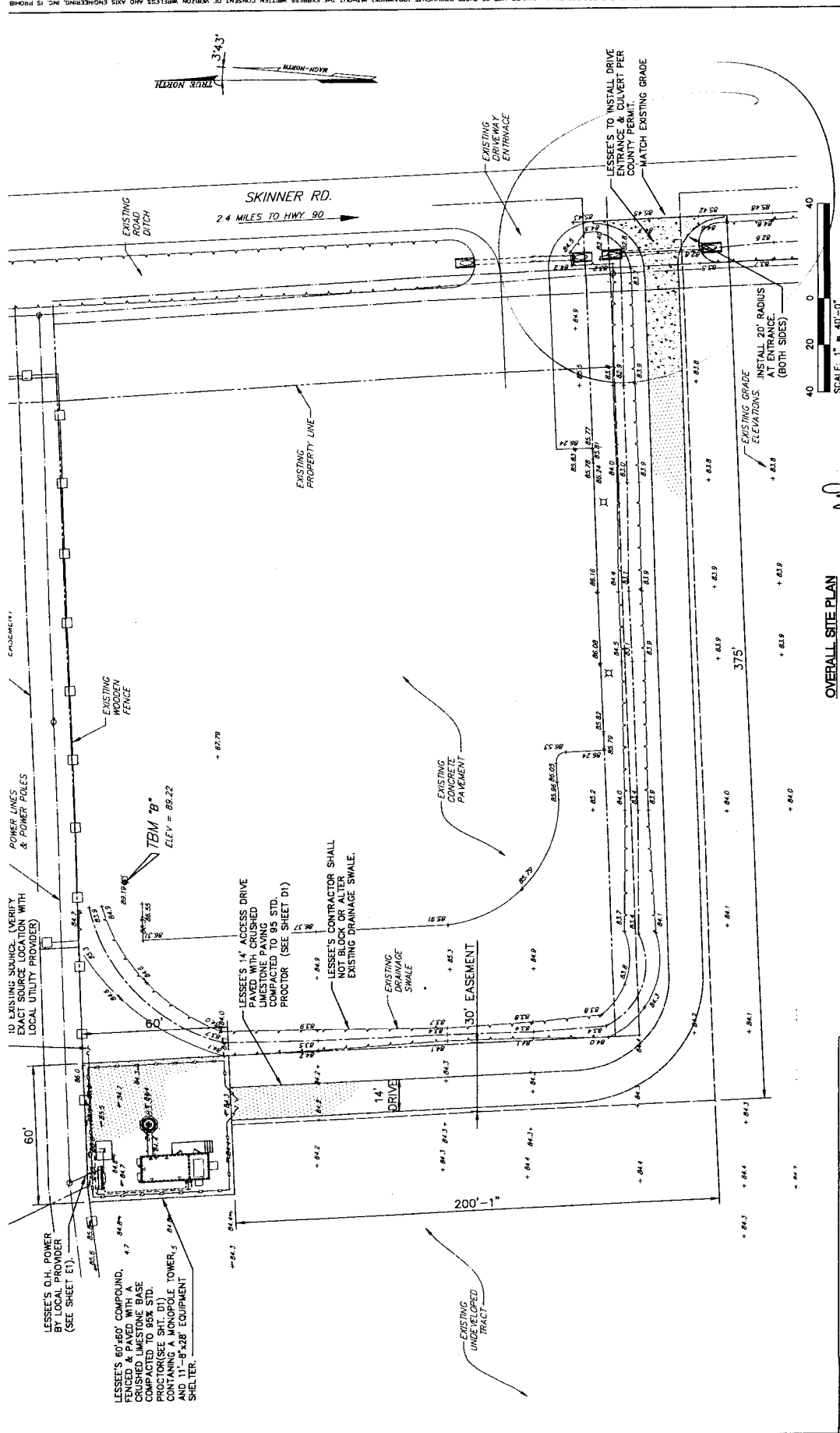
Steven A. Jares
Registered Professional Land Surveyor
No. 5317



LAND TITLE SURVEY
OF
PECAN GROVE SITE
BEING
0.0826 ACRE
OUT OF THE
RANDALL JONES LEAGUE, A-42
FORT BEND COUNTY, TEXAS
JANUARY 2009

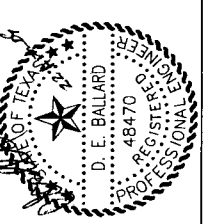


COTTON SURVEYING
COMPANY
8836 Burton, Suite 103
Houston, Texas 77051
Office (713) 961-0276



LEGEND

---	LESSEE FENCE	---	LESSEE LEASE LINE
---	LESSEE EASEMENT	---	LESSEE U.G. TELCO
---	LESSEE ELEVATION	---	LESSEE U.G. POWER
---	LESSEE PAVING	---	LESSEE O.H. UTILITY
---	LESSEE UTILITY POLE	---	EXISTING EASEMENT
---	LESSEE UTILITY	---	EX. PROPERTY LINE
---	EX. O.H. UTILITY	---	EX. C.I. FENCE
---	EX. HIGH BANK	---	EX. B.W. FENCE
---		---	EX. ELEVATION



OVERALL SITE PLAN
 SCALE: 1" = 40'-0"

EXISTING UNDER GROUND UTILITIES TO BE SHOWN AND LOCATED AND PROTECT EXISTING UNDER GROUND UTILITIES DURING CONSTRUCTION

NOTE
 THIS PLAN IS SHOWN TO CLARIFY THE RELATIONSHIP OF PROPOSED LESSEE WORK TO OVERALL SITE ONLY. LEGAL DESCRIPTIONS SHOWN. REFER TO SURVEY BY: COTTON SURVEYING COMPANY FOR COMPLETE SITE INFORMATION.

NOTES:

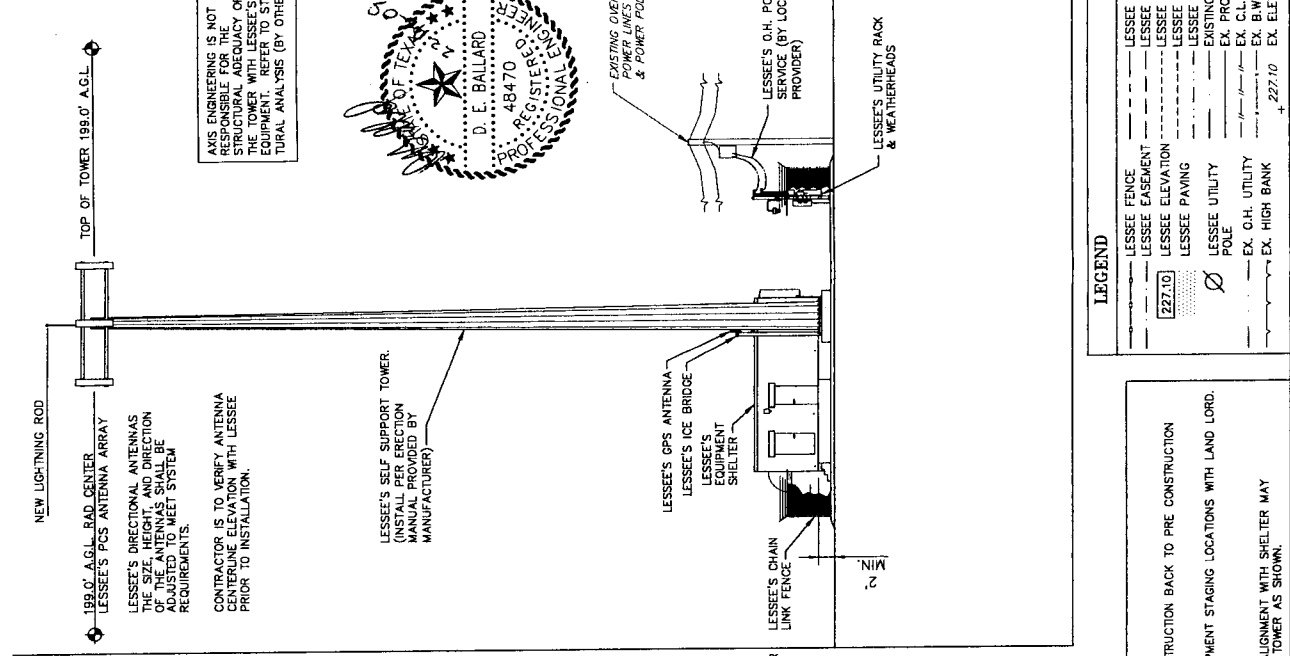
- 1.) CONTRACTOR IS TO REPAIR ALL DAMAGE RESULTING FROM CONSTRUCTION BACK TO THE CONSTRUCTION CONDITION AT COMPLETION OF WORK.
- 2.) CONTRACTOR SHALL COORDINATE SITE ACCESS TIMES AND EQUIPMENT STAGING LOCATIONS WITH LAND LORD.
- 3.) TOWER IS TO SET ON THE IDENTIFIED CENTER POINT.
- 4.) ICE BRIDGE LENGTH SHOWN IS RELATIVE LENGTH AND EXACT ALIGNMENT WITH SHELTER MAY VARY FROM DRAWING DIMENSIONS. ICE BRIDGE WILL APPROACH TOWER AS SHOWN.

last Worked 02-PecanGrove-C1.dwg -- APR 17, 2009 TIME: 3:22 PM

CONTRACTOR IS TO VERIFY ANTENNA STRUCTURAL ADEQUACY OF THE TOWER WITH LESSEE'S EQUIPMENT. REFERENCE TO STRUCTURAL ANALYSIS (BY OTHERS)

CONTRACTOR IS TO VERIFY ANTENNA STRUCTURAL ADEQUACY OF THE TOWER WITH LESSEE'S EQUIPMENT. REFERENCE TO STRUCTURAL ANALYSIS (BY OTHERS)

CONTRACTOR IS TO VERIFY ANTENNA STRUCTURAL ADEQUACY OF THE TOWER WITH LESSEE'S EQUIPMENT. REFERENCE TO STRUCTURAL ANALYSIS (BY OTHERS)



LEGEND

- LESSEE FENCE
- LESSEE EASEMENT
- LESSEE ELEVATION
- LESSEE PAVING
- LESSEE UTILITY POLE
- LESSEE UTILITY
- LESSEE U.G. TELCO
- LESSEE U.G. POWER
- LESSEE O.H. UTILITY
- EXISTING EASEMENT
- EX. PROPERTY LINE
- EX. C.L. FENCE
- EX. O.H. UTILITY
- EX. HIGH BANK
- EX. ELEVATION

NOTES

- CONTRACTOR IS TO REPAIR ALL DAMAGE RESULTING FROM CONSTRUCTION BACK TO PRE CONSTRUCTION CONDITION AT COMPLETION OF WORK.
- CONTRACTOR SHALL COORDINATE SITE ACCESS TIMES AND EQUIPMENT STAGING LOCATIONS WITH LAND LORD.
- TOWER IS TO SET ON THE IDENTIFIED CENTER POINT.
- ICE BRIDGE LENGTH SHOWN IS RELATIVE. LENGTH AND EXACT ALIGNMENT WITH SHELTER MAY VARY FROM DRAWING DIMENSIONS. ICE BRIDGE WILL APPROACH TOWER AS SHOWN.

NOTE: PLAN IS SHOWN TO CLARIFY THE RELATIONSHIP OF PROPOSED LESSEE WORK TO OVERALL SITE ONLY. AXIS ENGINEERING CLAIMS NO RESPONSIBILITY FOR THE LEGAL DESCRIPTIONS SHOWN.

REFER TO SURVEY BY: [Redacted]
 COTTON SURVEY COMPANY
 FOR COMPLETE SITE INFORMATION

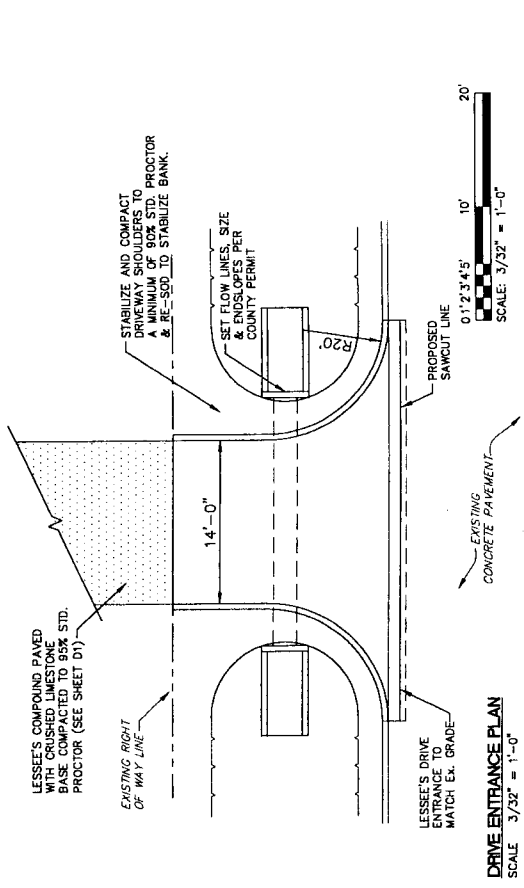
1st: Worked 03--PecanGrove-C2.dwg ~ APR 17, 2009 ~ TIME: 3:11 PM

ENLARGED SITE PLAN
 SCALE: 1" = 10'-0"

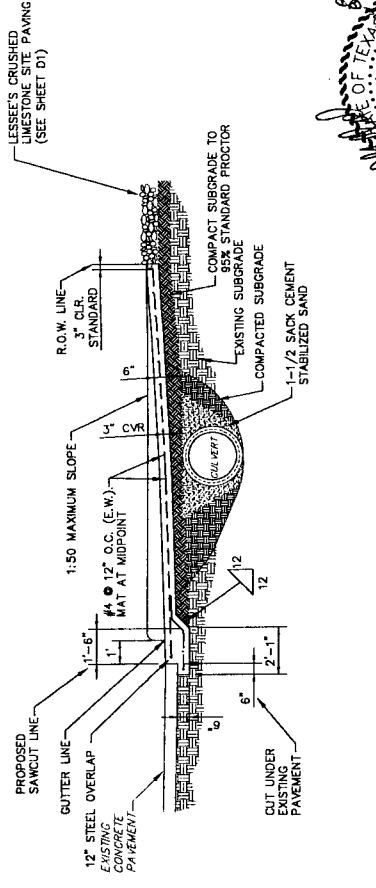
ALL TRENCHING IS TO BE HAND DUG

EXISTING UNDER GROUND UTILITIES ARE NOT SHOWN. CONTRACTOR IS TO LOCATE UTILITIES TO BE HAND DUG UTILITIES DURING CONSTRUCTION

THESE DRAWINGS ARE THE PROPERTY OF VERIZON WIRELESS. THEY ARE INTENDED FOR THE EXCLUSIVE USE OF THIS PROJECT ONLY. ANY RE-USE OF THESE DOCUMENTS (DRAWINGS) WITHOUT THE EXPRESS WRITTEN CONSENT OF VERIZON WIRELESS AND AXIS ENGINEERING, INC. IS PROHIBITED.



DRIVE ENTRANCE PLAN
 SCALE: 3/32" = 1'-0"



DRIVE ENTRANCE SECTION
 SCALE: 3/16" = 1'-0"



- GENERAL DRIVEWAY NOTES:**
1. PROPOSED DRIVEWAY, SIDEWALK, CURB, GUTTER LINE AND GRADE SHALL MATCH EXISTING STREET.
 2. PROPOSED SIDEWALK SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE, 4-1/2 SACK CEMENT PER CUBIC YARD, 4-1/2 INCHES THICK AND 4' MINIMUM WIDTH.
 3. PROPOSED DRIVEWAY SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE, 5 SACK CEMENT PER CUBIC YARD, 7 INCHES THICK FROM PROPOSED SAW CUT TO RIGHT-OF-WAY LINE/PROPERTY LINE.
 4. PROPOSED DRIVEWAY REINFORCING STEEL IS TO BE #4 DEFORMED, SPACED AT 24" O.C. (MIN), EACH WAY, WITH 10 INCHES MINIMUM CLEARANCE FROM EXISTING (IF ANY) FROM PROPOSED SAW CUT TO RIGHT-OF-WAY LINE.
 5. PROPOSED DRIVEWAY REINFORCING STEEL IS TO BE TIED TO EXISTING DRIVEWAY REINFORCING STEEL WITH A MINIMUM LAP OF 6 INCHES.
 6. PROPOSED GUTTER LINE IS TO BE MAINTAINED AT FACE OF EXISTING CURB.
 7. SAW CUT EXISTING CURB AT EACH END AND KNOCK OUT CURB FROM BEGINNING TO END OF PROPOSED DRIVEWAY.
 8. SAW CUT EXISTING PAVEMENT A MINIMUM OF 12 INCHES AWAY FROM FACE OF CURB (GUTTER LINE) AND BREAK OUT TO EXPOSE EXISTING REINFORCEMENT.
 9. COMPACT SUBGRADE FOR PROPOSED DRIVEWAY CONNECTION FROM PROPOSED SAW CUT AT EXISTING PAVEMENT TO RIGHT-OF-WAY LINE, COMPACT TO 95% OF STANDARD PROCTOR DENSITY (+/- 2% OPT. MOISTURE). THE COUNTY ENGINEER RESERVES THE RIGHT TO REQUIRE LABORATORY TESTS TO BE CONDUCTED.
- IF MORE THAN ONE PROPOSED DRIVEWAY IS BUILT ON THE SAME PROPERTY, SAID DRIVEWAYS SHALL BE SEPARATED BY A MINIMUM OF 20 FEET (ROADWAYS WITH CURBS & SIDEWALKS). REINFORCING STEEL TO BE ELEVATED A MINIMUM OF 3" ABOVE SUBGRADE. (3 INCHES MANUFACTURED CHAIRS ARE REQUIRED WITH A MAXIMUM SPACING OF 72 INCHES C/C EACH WAY)

ALL TRENCHING IS TO BE HAND DUG

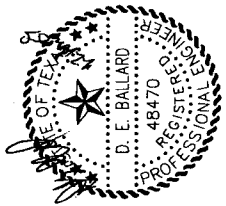
EXISTING UNDER GROUND UTILITIES ARE NOT SHOWN. CONTRACTOR IS TO LOCATE AND PROTECT EXISTING UNDER GROUND UTILITIES DURING CONSTRUCTION

NOTE:
 THIS PLAN IS SHOWN TO CLARIFY THE RELATIONSHIP OF PROPOSED LESSEE WORK TO EXISTING DRIVEWAY AND TO PROVIDE CLAIMS NO RESPONSIBILITY FOR THE LEGAL DESCRIPTIONS SHOWN.
 REFER TO SURVEY BY:
 COTTON SURVEY COMPANY
 FOR COMPLETE SITE INFORMATION.

NOTES:

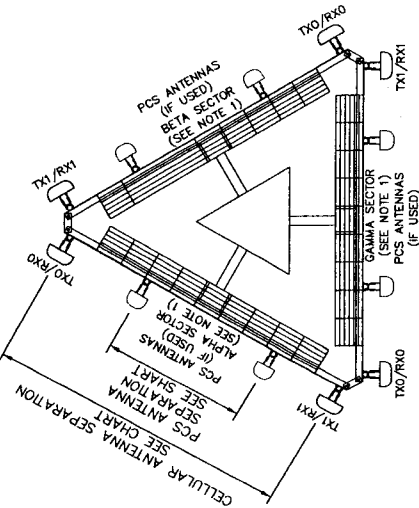
- 1.) CONTRACTOR IS TO REPAIR ALL DAMAGE RESULTING FROM CONSTRUCTION BACK TO PRE CONSTRUCTION CONDITION AT COMPLETION OF WORK.
- 2.) CONTRACTOR SHALL COORDINATE SITE ACCESS TIMES AND EQUIPMENT STAGING LOCATIONS WITH LAND LORD.
- 3.) TOWER IS TO SET ON THE IDENTIFIED CENTER POINT.
- 4.) ICE BRIDGE LENGTH SHOWN IS RELATIVE. LENGTH AND EXACT ALIGNMENT WITH SHELTER MAY VARY FROM DRAWING DIMENSIONS. ICE BRIDGE WILL APPROACH TOWER AS SHOWN.

- FOR TYPICAL ANTENNA DIMENSIONS SEE ANTENNA CHART. BUT CONTRACTOR TO VERIFY INFORMATION WITH VERIZON WIRELESS BEFORE INSTALLATION.
- COAX ARE TO BE MARKED WITH VINYL TAPE CORRESPONDING TO THE COLOR CODING CHART. COAX SHALL BE MARKED AT BOTH ENDS AND MARKS SHALL BE VISIBLE FROM THE GROUND. THE HANDS AT THE TOP SHALL BE 2" WIDE AND SHALL BE 1" WIDE AT THE BOTTOM.
- CONTRACTOR SHALL VERIFY THE NUMBER AND SPACING REQUIRED FOR THE ANTENNAS IN EACH SECTOR WITH VERIZON WIRELESS AND SHALL ALLOW FUTURE SPACING AS DIRECTED.
- GPS ANTENNA CABLE SHALL ENTER THE SHELTER THROUGH AN INDEPENDENT PORT.



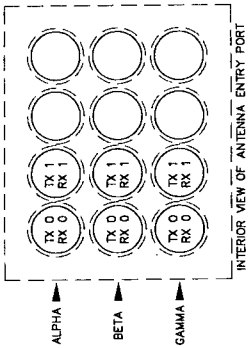
ANTENNA INSTALLATION NOTES

TYPICAL ANTENNA LAYOUT
(SEE SHEET C2 FOR ANTENNA NOTES)



Antenna Spacing (ft)	Antenna Spacing Cellular	Antenna Spacing PCS
0	4.3	2
10	4.3	2
20	4.3	2
30	4.3	2
40	4.3	2
50	4.3	2
60	5.4	2.4
70	6.3	2.8
80	7.2	3.2
90	8.1	3.6
100	9	4
110	9.9	4.4
120	10.8	4.8
130	11.7	5.2
140	12.6	5.6
150	13.5	6
160	14	6.4
170	14.8	6.8
180	15.6	7.2
190	16.4	7.6
200	17.2	8
210	18	8.4
220	18.8	8.8
230	19.6	9.2
240	20.4	9.6
250	21.2	10
260	22	10.4
270	22.8	10.8
280	23.6	11.2
290	24.4	11.6
300	25.2	12
310	26	12.4
320	26.8	12.8
330	27.6	13.2
340	28.4	13.6
350	29.2	14

TYPICAL ANTENNA SEPARATION CHART
(SEE ANTENNA TABLE, THIS SHEET)

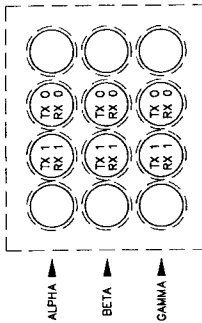


TYPICAL PCS ANTENNA COAX ENTRY PORT

ANTENNA COLOR CODING CHART
OR=ORANGE, W=WHITE, B=BLUE
R=RED, Y=YELLOW

1	TXO/RXO ALPHA	1-OR, 1-W, 1-B
2	RX1 ALPHA	1-OR, 2-W, 1-B
3	FUTURE	
4	GPS	
5	TXO/RXO BETA	1-R, 1-W, 1-B
6	RX1 BETA	1-R, 2-W, 1-B
7	FUTURE	
8	FUTURE	
9	TXO/RXO GAMMA	1-Y, 1-W, 1-B
10	RX1 GAMMA	1-Y, 2-W, 1-B
11	FUTURE	
12	FUTURE	

TYPICAL PCS ANTENNA COLOR CODING



TYPICAL CELLULAR ANTENNA COAX ENTRY PORT

ANTENNA COLOR CODING CHART
OR=ORANGE, W=WHITE, B=BLUE
R=RED, Y=YELLOW

1	TXO/RXO ALPHA	1-OR, 1-W
2	RX1 ALPHA	1-OR, 2-W
3	TXO/RXO BETA	1-R, 1-W
4	RX1 BETA	1-R, 2-W
5	TXO/RXO GAMMA	1-Y, 1-W
6	RX1 GAMMA	1-Y, 2-W
7	GPS	

TYPICAL CELLULAR ANTENNA COLOR CODING

VERIZON WIRELESS - TEXAS AREA
PECAN GROVE SITE

AXIS
17133 CEDAR BLVD
HOUSTON, TEXAS 77055
TEL: 713-460-8000
FAX: 713-460-8002
WWW.AXISCOMMUNICATIONS.COM

01-081209-007

REVISIONS BY: []

DATE: 1/10
PROJECT: 01-081209-007
JOB PROJECT NUMBER: 01-081209-007

DRYER BY: []
CHECKED BY: []
DATE: []
AS SHOWN
TEL: []

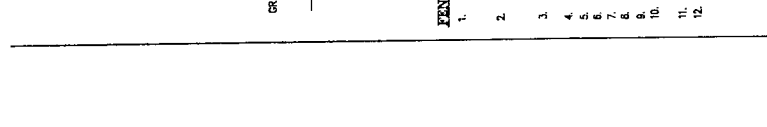
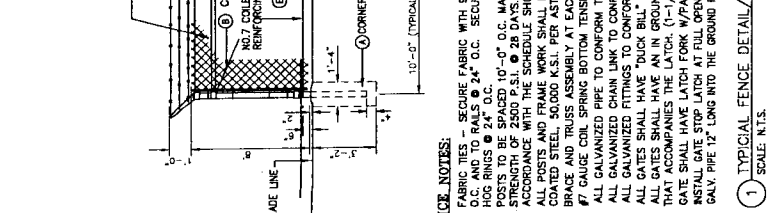
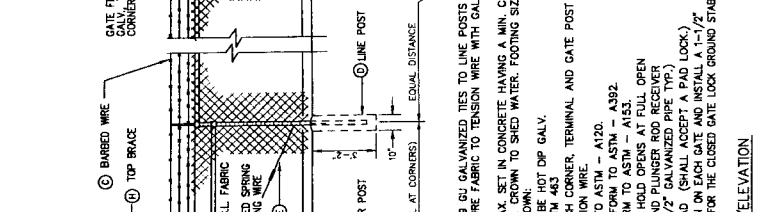
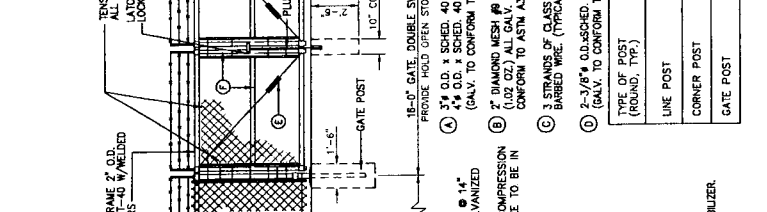
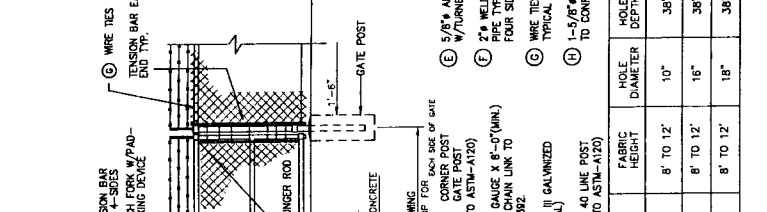
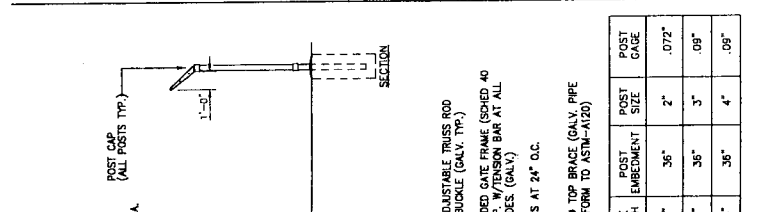
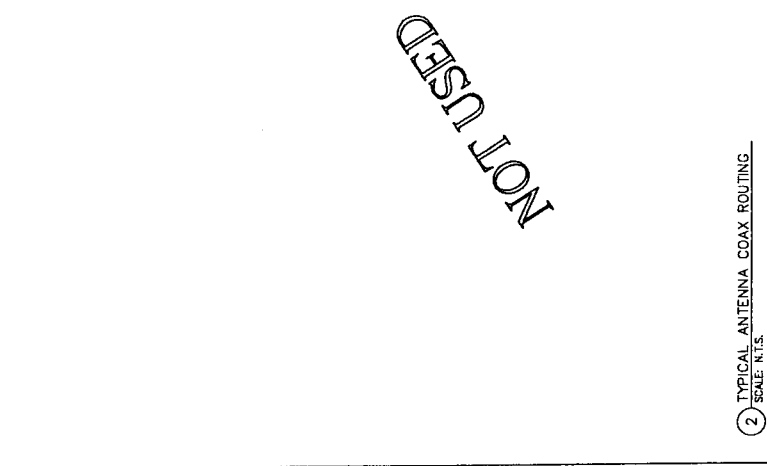
AT-1

VERIZON WIRELESS
PECAN GROVE

ANTENNA INFORMATION TABLE

lost: WerKed 04--PecanCover-AT1.dwg -- AFR 17, 2009 -- TIME: 3:10 PM

THESE DRAWINGS ARE THE PROPERTY OF VERIZON WIRELESS. THEY ARE INTENDED FOR THE EXCLUSIVE USE OF THESE DOCUMENTS (OWNERS) WITHOUT THE EXPRESS WRITTEN CONSENT OF VERIZON WIRELESS AND AXIS ENGINEERING, INC. IS REQUESTING THAT YOU RETURN THESE DRAWINGS TO VERIZON WIRELESS AND AXIS ENGINEERING, INC. IN THE EVENT OF A CHANGE OF CONTRACTOR OR PROJECT CLOSURE.



TYPE OF POST (ROUND, TYP.)	FABRIC HEIGHT	HOLE DIAMETER	HOLE DEPTH	POST EMBEDMENT	POST SIZE	POST GAGE
LINE POST	8' TO 12'	10"	36"	36"	2"	.072"
CORNER POST	8' TO 12'	16"	36"	36"	3"	.09"
GATE POST	8' TO 12'	18"	36"	36"	4"	.09"

1. FABRIC TIES - SECURE FABRIC WITH 9 G. GALVANIZED TIES TO LINE POSTS @ 14" O.C. AND TO RAILS @ 24" O.C. SECURE FABRIC TO TENSION WIRE WITH GALVANIZED POSTS TO BE SPACED 10'-0" O.C. MAX. SET IN CONCRETE HAVING A MIN. COMPRESSION STRENGTH OF 2500 P.S.I. @ 28 DAYS. CROWN TO SHED WATER. FOOTING SIZE TO BE IN ACCORDANCE WITH THE SCHEDULE SHOWN.

2. ALL POSTS AND FRAME WORK SHALL BE HOT DP GALV.

3. COATED STEEL, 50,000 K.S.I. PER ASTM A43

4. 6" GALV. CONCRETE BOTTOM TENSION WIRE.

5. 6" GALV. CONCRETE BOTTOM TENSION WIRE.

6. ALL GALVANIZED PIPE TO CONFORM TO ASTM - A120.

7. ALL GALVANIZED CHAIN LINK TO CONFORM TO ASTM - A392.

8. ALL GALVANIZED FITTINGS TO CONFORM TO ASTM - A153.

9. ALL GATES SHALL HAVE "DUCK BILL" HOLD OPENS AT FULL OPEN.

10. ALL GATES SHALL HAVE AN IN GROUND PLUNGER ROD RECEIVER THAT ACCOMPANIES THE LATCH. (1-1/2" GALVANIZED PIPE TYP.)

11. GATE SHALL HAVE LATCH FORK W/PAD (SHALL ACCEPT A PAD LOCK).

12. INSTALL GATE STOP LATCH AT FULL OPEN ON EACH GATE AND INSTALL 1-1/2" 2" GALV. PIPE 12" LONG INTO THE GROUND FOR THE CLOSED GATE LOCK GROUND STABILIZER.

1. TYPICAL FENCE DETAIL/ELEVATION. SCALE: N.T.S.

2. TYPICAL ANTENNA COAX ROUTING. SCALE: N.T.S.

3. COMPOUND SECTIONS. SCALE: N.T.S. FOR LIMESTONE SPECIFICATIONS, REFER TO SHEET N1, LIMESTONE SPECIFICATION SECTION.

4. CONDUIT BEDDING. SCALE: N.T.S. FOR TRENCH & BACKFILL SPECIFICATIONS, REFER TO SHEET N1, TRENCH & FILL SPECIFICATION SECTION.

5. A/C FRENCH DRAIN. SCALE: N.T.S. LOCATE DRAIN DIRECTLY BELOW A/C OUT FLOW BUT NOT CLOSER THAN 10" FROM CENTER OF DRAIN TO SHELTER FOUNDATION. TOP ELEVATION MUST NOT EXCEED 0.5" MAX ABOVE EXISTING GRADE.

6. PAVING SECTIONS. SCALE: N.T.S. FOR LIMESTONE SPECIFICATIONS, REFER TO SHEET N1, LIMESTONE SPECIFICATION SECTION.

7. CABLE BRIDGE TRAPEZE ASSEMBLY. SCALE: N.T.S. FOR CONCRETE SPECIFICATIONS, REFER TO CONCRETE NOTES ON SHEET N1.

8. CULVERT SECTION. SCALE: N.T.S. FOR EXCAVATION, FILL & COMPACTION SPECIFICATIONS, REFER TO SHEET N1, GENERAL & EXCAVATION & FILL NOTES.

GENERAL GROUNDING NOTES

1. ALL GROUND RODS SHALL BE A MIN. 5/8" x 4'-0" GALVANIZED STEEL. COPPER MIN.
2. BELOW GROUND CONDUCTORS SHALL BE #2 AWG TIN PLATED SOLID COPPER MIN.
3. GROUND RODS SHALL BE DRIVEN TO A DEPTH SUCH THAT THE TOP OF ROD IS 30" BELOW FINISHED GRADE.
4. HOLD BOLDS TO AN 12" MIN. ABOVE GROUND AND 24" BELOW GROUND.
5. A MECHANICAL JOINT WILL BE PERMITTED FROM HVAC & ELECTRICAL EQUIPMENT TO EXTERIOR EQUIPMENT (MISC.) TO EXTERIOR GROUND LOOP AS WELL AS PER N.E.C.
6. GROUND HVAC UNITS TO EXTERIOR GROUND RING.
7. THE EXTERNAL GROUND RING MAY TAKE THE PHYSICAL FORM OF A "C" OR AN "L" SHAPE IN CASES WHERE ALL SIDES OF THE BUILDING ARE NOT ACCESSIBLE.
8. GROUND RODS ARE TO BE PLACED ALONG GROUND RING AT UNIFORM SPACING.
9. USE 2-HOLE LUG OR ALL LEADS TO MASTER GROUND BAR.

FENCE GROUNDING NOTE

- 1) ALL FENCE POSTS WITHIN 25' OF THE TOWER GROUND RING OR WITHIN 6' OF THE EQUIPMENT GROUND RING ARE TO BE BONDED TO THE APPROPRIATE GROUND RING WITH A #2 SOLID COPPER, TINNED COPPER WIRE.
- 2) INSTALL A STANDARD GROUND ROD BETWEEN THE FENCE POST AND GROUND RING.

CONNECTION JOINT PREPARATION

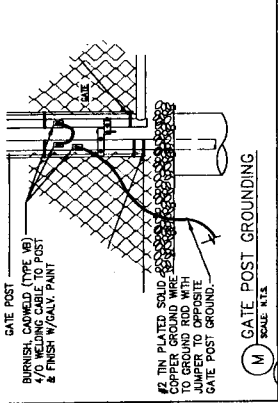
THE SURFACES OF EACH CONDUCTOR TO BE CONNECTED ARE TO BE WELL CLEANED, REMOVING ALL PAINT, DIRT, AND CORROSION IN THE AREA OF CONNECTION BEFORE EACH JOINT IS MADE. WHETHER THE JOINT IS A MECHANICAL JOINT, WELDED JOINT, OR AN ANTI-OXIDANT COMPOUND, SUCH AS "NO-OX" OR EQUIVALENT IS RECOMMENDED. WHEN USING NON-WELDED MECHANICAL CONNECTIONS, SUCH AS BOLTS, NUTS, OR LUGS, THE FOLLOWING PREPARATION IS TO BE USED TO PREPARE THE SURFACES:

1. TO ENSURE GOOD ELECTRICAL CONTACT, THE MATING SURFACES SHOULD BE CLEAN AND FLAT.
2. TWO-HOLE LUGS ARE REQUIRED ON ALL #2 AWG OR LARGER GROUND LEADS MECHANICALLY ATTACHED TO THE M.G.B., I.C.B., AND E.C.B., AND ARE REQUIRED FOR ALL #2 AWG OR LARGER LUGS. LUGS MUST BE TIGHTENED TO THE CORRECT TORQUE TO LOOSEN A SINGLE MOUNTING BOLT.
3. STAINLESS STEEL MOUNTING HARDWARE (NUTS, BOLTS, ETC.) IS REQUIRED ON ALL OUTSIDE CONNECTIONS AS WELL AS ON ALL INSIDE CONNECTIONS TO THE M.G.B., I.C.B., AND E.C.B. OTHER GROUND LEADS, LUGS MAY BE TINNED RATHER THAN STAINLESS.
4. THE LUG HOLES AND STAINLESS BOLT SIZES ARE TO BE CHOSEN TO MATCH THE MOUNTING HOLE SIZES, SO THAT PRIOR TO TIGHTENING THE NUTS, SPLIT RING TYPE LOCK WASHERS SHOULD BE USED TO PREVENT THE NUTS FROM LOOSENING.

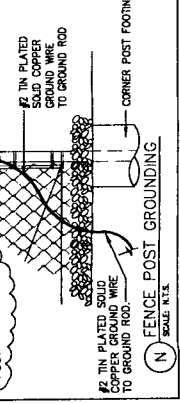
GATE POST GROUNDING

GATE POST (TYPE W) BURNISH, CAD WELD TO POST & FINISH W/QUALY PAINT

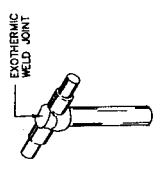
#2 TIN PLATED SOLID COPPER GROUND WIRE TO BE ATTACHED TO JUMPER TO OPPOSITE GATE POST GROUND.



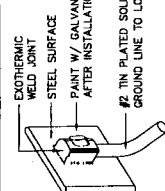
NOTE: NOTES THIS SHEET FOR INTERMEDIATE FENCE POST GROUNDING.



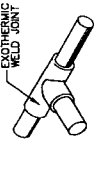
(N) FENCE POST GROUNDING



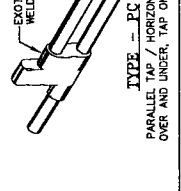
TYPE - GT
TEE / HORIZONTAL CABLE.



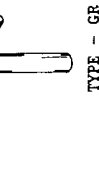
TYPE - VB
TAP / HORIZONTAL CABLE DOWN AND OFF SURFACE



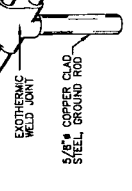
TYPE - JA
TEE / HORIZONTAL



TYPE - PC
PARALLEL TAP / HORIZONTAL OVER AND UNDER, TAP ON TOP

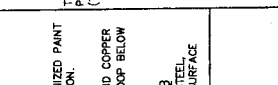


TYPE - GR
HORIZONTAL CABLE TO VERTICAL DOWN ROD-RIGHT ANGLE



TYPE - NC
TEE / HORIZONTAL THRU AND TAP CABLES. VERTICAL DOWN ROD

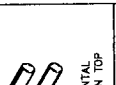
- DIAGRAM RULES:**
- 1 COAX COLLECTOR GROUND BAR ATTACHED DIRECTLY TO TOWER.
 - 2 MAXIMUM SPACING BETWEEN GROUND BARS TO BE 75'.
 - 3 #2 TIN PLATED SOLID COPPER GROUND WIRE TO TOWER LOOP BELOW.
 - 4 GROUND ICE BRIDGE POSTS TO GROUND LOOP.
 - 5 COAX TRAY: 1 - #2 SOLID COPPER JUMPER AT EACH END.
 - 6 GROUND BAR ATTACHED TO SHELTER WITH ISOLATORS AT USED COAX PORT. ONLY.
 - 7 WITH 2-#2 TIN PLATED SOLID COPPER GROUND WIRES TO GROUND LOOP.
 - 8 GROUND WIRE FROM EXTERIOR GROUND LOOP TO EXTERIOR GROUND LOOP. SEE DETAIL 7 SHEET 62.
 - 9 1-#2 TIN PLATED SOLID COPPER GROUND WIRE FROM TELCO DEMARC TO GROUND LOOP (VERIFY MFR.'S REQUIREMENTS)
 - 10 GROUND WIRE FROM UTILITY RACK TO GROUND LOOP.
 - 11 2-#2 TIN PLATED SOLID COPPER GROUND WIRE FROM EXTERIOR GROUND BAR TO SHELTER GROUND BAR TO SHELTER USING ISOLATORS.
 - 12 UNUSED PORTS NOT GROUNDING.
 - 13 CORNER FENCE POSTS: GROUND ALL CORNER FENCE POSTS. SEE DETAIL "N" THIS SHEET.



TYPICAL CORNER POST GROUNDING (TYP. 4 CORNERS)



NEW CHAINLINK FENCE



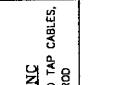
GROUNDING DIAGRAM N.T.S.



NEW GATE



TYPICAL SHELTER GROUNDING DIAGRAM N.T.S.

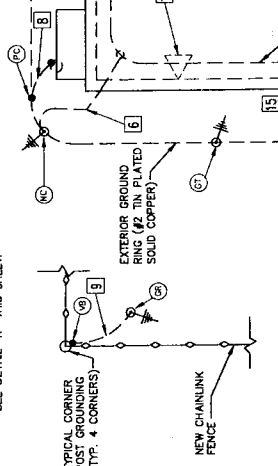


TYPICAL GATE GROUNDING DIAGRAM N.T.S.

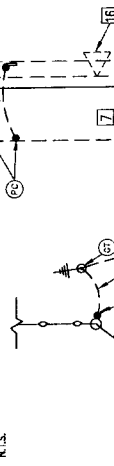


TYPICAL UTILITY RACK GROUNDING DIAGRAM

- 14 UNPLATED SOLID COPPER WIRE FROM UTILITY RACK TO GROUND LOOP.
- 15 MAX. 75' APART ON TOWER (SEE 2)
- 16 GROUND PRIMARY ELEC. SERVICE ENTRANCE TO INDEPENDENT GROUND ROD, PER N.E.C.
- 17 1-#2 TIN PLATED SOLID COPPER GROUND WIRE FROM GENERATOR ENCLOSURE FRAME TO GROUND BAR.
- 18 1-#2 TIN PLATED SOLID COPPER GROUND WIRE FROM UTILITY RACK TO GROUND LOOP (VERIFY MFR.'S REQUIREMENTS)
- 19 UNUSED PORTS NOT GROUNDING.
- 20 2-#2 TIN PLATED SOLID COPPER GROUND WIRE FROM EXTERIOR GROUND BAR TO SHELTER GROUND BAR TO SHELTER USING ISOLATORS.



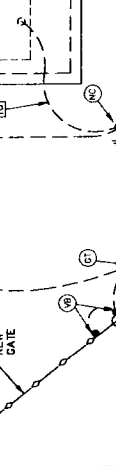
TYPICAL SHELTER GROUNDING DIAGRAM N.T.S.



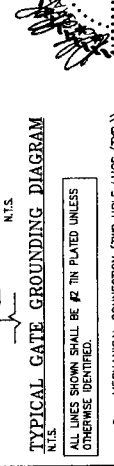
TYPICAL UTILITY RACK GROUNDING DIAGRAM



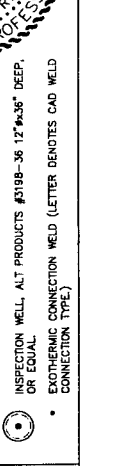
TYPICAL GATE GROUNDING DIAGRAM N.T.S.



TYPICAL SHELTER GROUNDING DIAGRAM N.T.S.



TYPICAL UTILITY RACK GROUNDING DIAGRAM



TYPICAL GATE GROUNDING DIAGRAM N.T.S.



TYPICAL UTILITY RACK GROUNDING DIAGRAM

Verizon Wireless
 14105 N. CENTRAL EXPRESSWAY
 SUITE 1000
 DALLAS, TEXAS 75243
 (713) 907-1600
 (713) 907-1610
 WIRELESS

Verizon Wireless - Texas Area
 SHELLTER GROUNDING PLAN & DETAILS
 PECAN GROVE SITE

AXIS
 8000 WINTHROP
 SUITE 140
 DALLAS, TEXAS 75243
 PHONE: 713-460-8800
 FAX: 713-460-3037
 www.axiscommunications.net
 AXIS PROJECT NUMBER: 01-081209-007

DATE: 01/11/09
 DRAWN BY: JG
 CHECKED BY: JG
 DATE: 01/11/09
 PART NO.:
 AS SHOWN
 TEL. NO.:

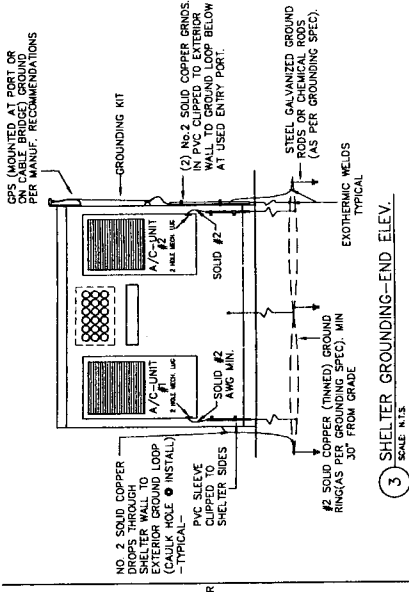
G1

VERIZON WIRELESS
 PECAN GROVE

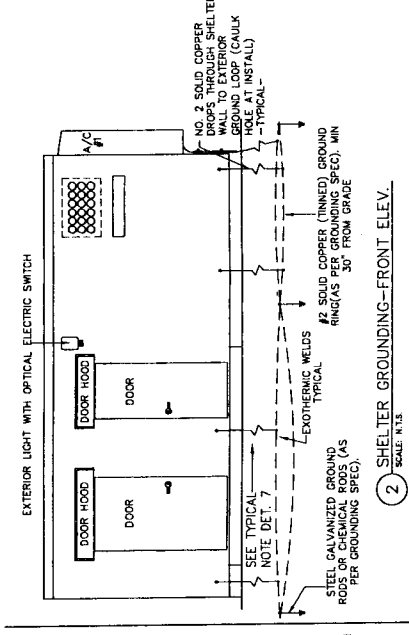
STATE OF TEXAS
 D. E. BALLARD
 REGISTERED PROFESSIONAL ENGINEER
 48470

REVISIONS	BY	DATE

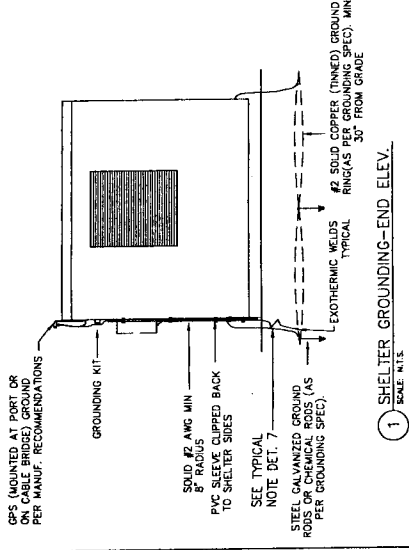
DRAWN BY:	
CHECKED BY:	
DATE:	
SCALE:	
PLANT NO.:	
AS SHOWN:	
FILE NAME:	



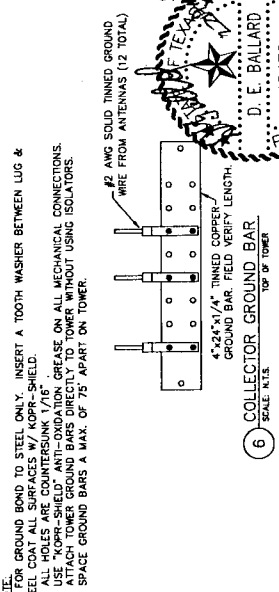
1 SHELTER GROUNDING-END ELEV.
 SCALE: N.T.S.



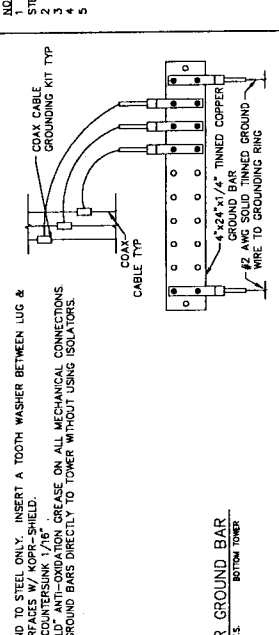
2 SHELTER GROUNDING-FRONT ELEV.
 SCALE: N.T.S.



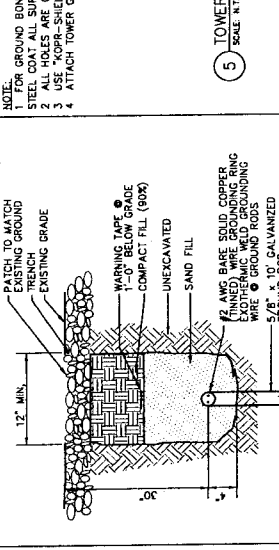
3 SHELTER GROUNDING-END ELEV.
 SCALE: N.T.S.



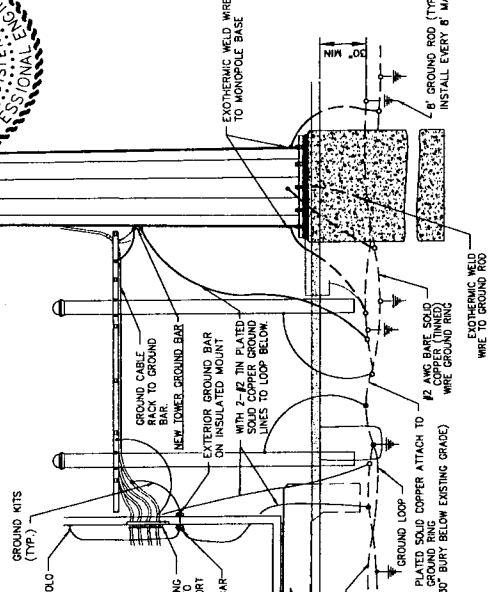
4 TOWER GROUND BAR
 BOTTOM TOWER
 SCALE: N.T.S.



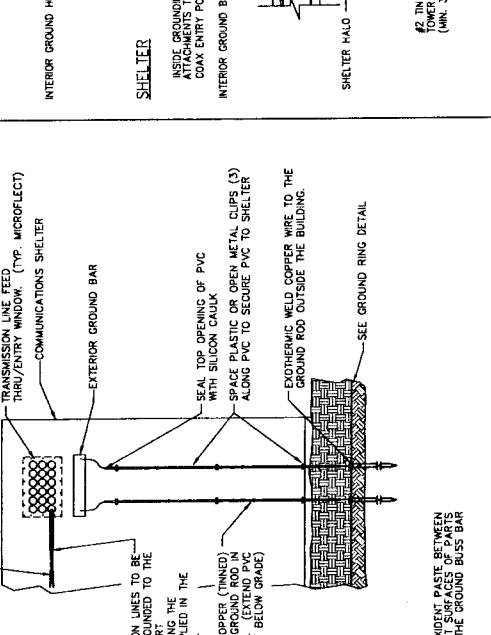
5 TOWER GROUND BAR
 TOP OF TOWER
 SCALE: N.T.S.



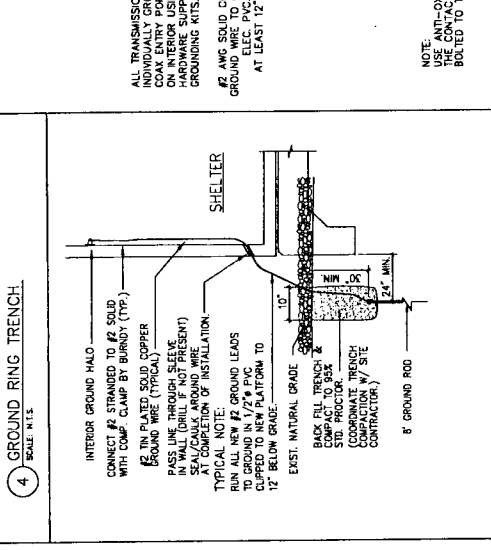
6 GROUND RING TRENCH
 SCALE: N.T.S.



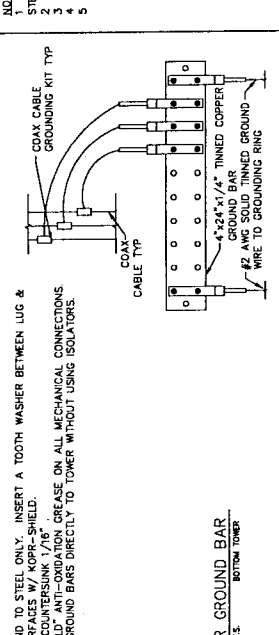
7 GROUNDING PROFILE
 SCALE: N.T.S.



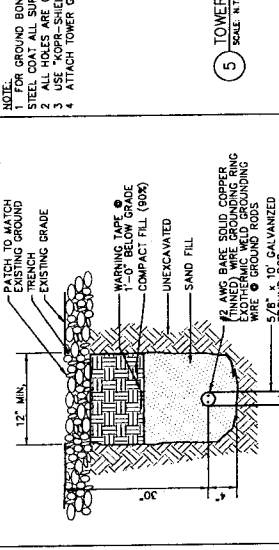
8 COAX GROUNDING AT USED ENTRY PORT
 SCALE: N.T.S.



9 GROUNDING ELEVATION AT USED ENTRY PORT
 SCALE: N.T.S.

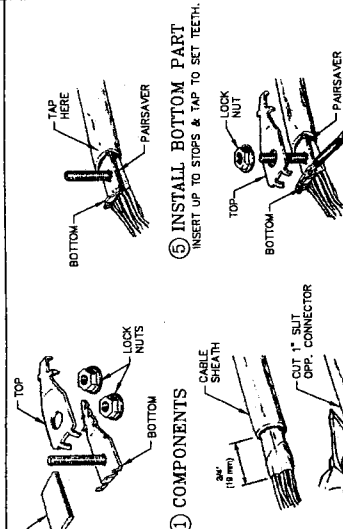


10 COLLECTOR GROUND BAR
 SCALE: N.T.S.



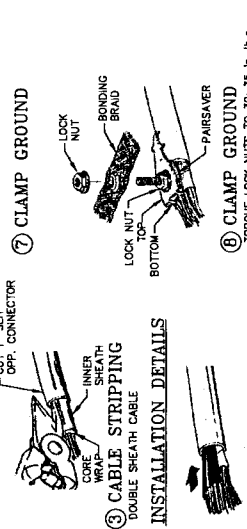
11 SHELTER GROUNDING-END ELEV.
 SCALE: N.T.S.

- DIAGRAM NOTES:**
- 1-#2 TIN PLATED SOLID COPPER GROUND WIRE FROM LIGHTNING ROD TO GROUND AND THEN TO GROUND LOOP (VERIFY MFR'S REQUIREMENTS). LEAD IS TO TAKE A PATH TO GROUND INDEPENDENT OF ALL NEW CABLING, CONDUIT, OTHER GROUND LEADS, ETC. CLIP LEAD TO TOWER MEMBERS AS REQUIRED.
 - 2-#2 SUPPORTING TOWER TO THE TOWER GROUND LOOP. CAWELDED TO LEG BASE PLATE.
 - 3-#2 TIN PLATED SOLID COPPER GROUND WIRES FROM AT 120" SEPARATION AT THE BASE OF A GUY TOWER TO THE TOWER GROUND LOOP.
 - 4-12" ABOVE THE BASE OF A MONOPOLE TO THE TOWER GROUND LOOP.



TYPICAL LIGHTNING ROD INSTALLATION
 N.T.S.

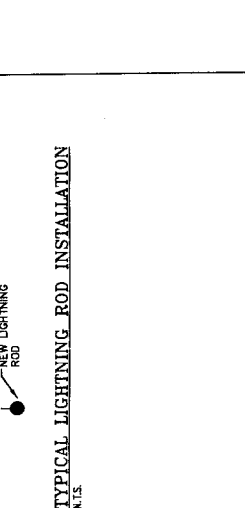
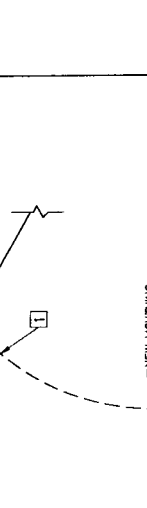
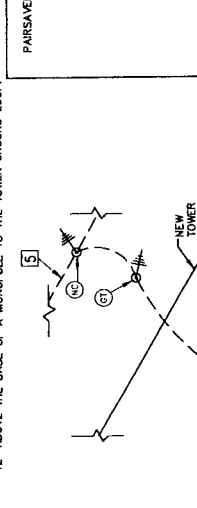
- 1 COMPONENTS
 PAIRSAVER, LOCK NUTS, CABLE SHEATH (3/4" (18mm)), CUT 1" SUT OPP. CONNECTOR
- 2 CABLE STRIPPING
 SINGLE SHEATH CABLE (3/4" (18mm)), OUTER SHEATH, CORE WRAP
- 3 CABLE STRIPPING
 DOUBLE SHEATH CABLE (3/4" (18mm)), CORE WRAP, INNER SHEATH, CUT 1" SUT OPP. CONNECTOR
- 4 INSTALL PAIRSAVER
 INSERT OPPOSITE 1" SUT BETWEEN OUTER SHEATH AND INNER CORE
- 5 INSTALL BOTTOM PART
 INSERT UP TO STOPS & TAP TO SET TEETH.
- 6 CLAMP GROUND
 STRANDED OR BARE SOLID GROUND WIRE, LOCK NUT, PAIRSAVER
- 7 CLAMP GROUND
 PRETERMINATED GROUND WIRE, LOCK NUT, PAIRSAVER
- 8 CLAMP GROUND
 TORQUE LOCK NUTS TO 30-35 ft-lb.



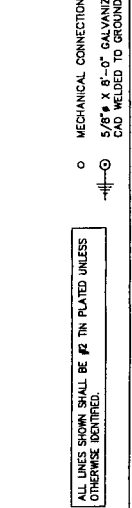
INSTALLATION DETAILS

TELEPHONE CABLE GROUNDING CONNECTOR DETAILS
 USE 3M SCOTCHLOCK CONNECTOR 4460-0, 4460-DS, OR APPROVED EQUIVALENT. EXAMINE MANUFACTURER'S DOCUMENTATION TO VERIFY INSTALLATION PROCEDURE. GROUNDING CONNECTOR TO BE INSTALLED AT BOTH ENDS OF EACH CABLE.

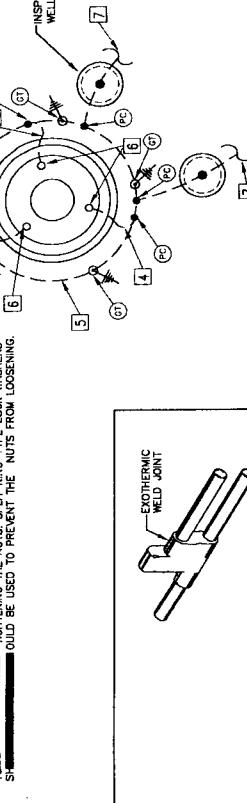
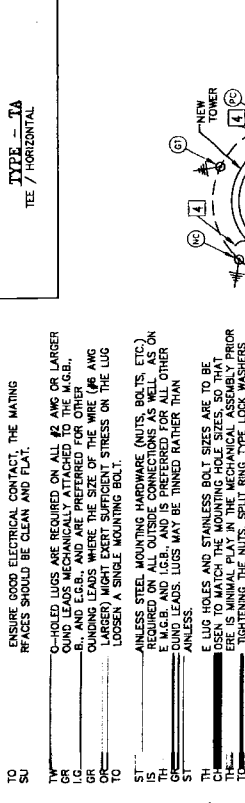
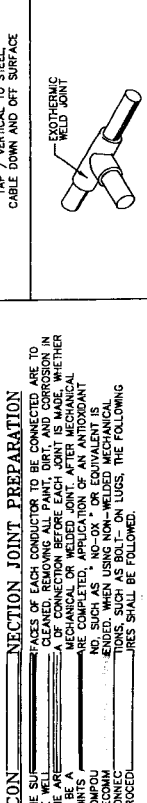
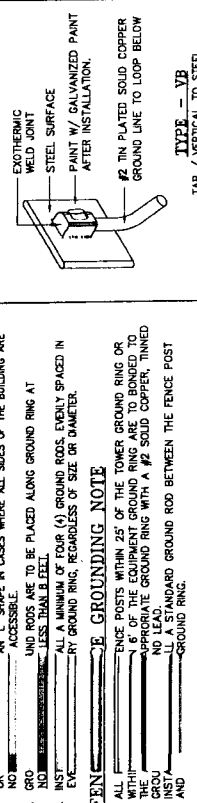
- GENERAL GROUNDING NOTES:**
1. ALL GROUND RODS SHALL BE A MIN. 5/8"Ø GALVANIZED STEEL.
 2. ALL GROUND CONDUCTORS SHALL BE #2 AWG TIN PLATED SOLID COPPER.
 3. GROUND RODS SHALL BE DRIVEN TO A DEPTH SUCH THAT THE TOP OF THE ROD IS 10" BELOW FINISHED GRADE.
 4. HORIZONTAL GROUND RODS SHALL BE PERMITTED FROM RWAC & ELECTRICAL DEPARTMENTS TO GROUND RODS.
 5. EXTERNAL GROUND RING MAY TAKE THE PHYSICAL FORM OF A "C" ANGLE OR AN "L" SHAPE IN CASES WHERE ALL SIDES OF THE BUILDING ARE ACCESSIBLE.
 6. GROUND RODS ARE TO BE PLACED ALONG GROUND RING AT A MINIMUM OF FOUR (4) FEET SPACING.
 7. ALL GROUND RINGS, REGARDLESS OF SIZE OR DIAMETER, SHALL BE A MECHANICAL OR WELDED JOINT. AFTER MECHANICAL JOINTS ARE MADE, ALL JOINTS SHALL BE EQUIVALENT TO THE ORIGINAL JOINTS. WHEN USING NON-WELDED MECHANICAL JOINTS, SUCH AS BOLT-ON LUGS, THE FOLLOWING NOTES SHALL BE FOLLOWED.
 8. ENSURE GOOD ELECTRICAL CONTACT. THE MATING SURFACES SHOULD BE CLEAN AND FLAT.
 9. 0-HOLED LUGS ARE REQUIRED ON ALL #2 AWG OR LARGER GROUND LEADS MECHANICALLY ATTACHED TO THE M.G.B.
 10. GROUND LEADS WHERE THE SIZE OF THE WIRE (#6 AWG OR LARGER) MIGHT EXERT SUFFICIENT STRESS ON THE LUG TO LOOSEN A SINGLE MOUNTING BOLT.
 11. UNLESS STEEL MOUNTING HARDWARE (NUTS, BOLTS, ETC.) IS REQUIRED ON ALL OUTSIDE CONNECTIONS AS WELL AS ON E.M.S.B. AND I.G.B., AND IS PREFERRED FOR ALL OTHER CONNECTIONS.
 12. E LUG HOLES AND STAINLESS BOLT SIZES ARE TO BE CHosen TO MATCH THE MOUNTING HOLE SIZES, SO THAT THERE IS MINIMAL PLAY IN THE MECHANICAL ASSEMBLY PRIOR TO TIGHTENING THE NUTS. SPLIT RING TYPE LOCK WASHERS SHOULD BE USED TO PREVENT THE NUTS FROM LOOSENING.



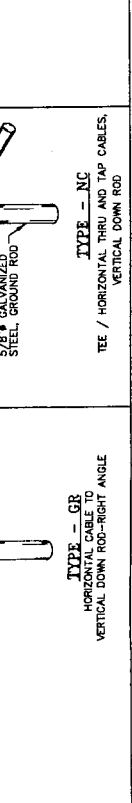
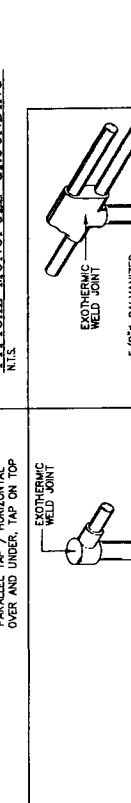
TYPICAL MONOPOLE GROUNDING
 N.T.S.



- CONNECTION JOINT PREPARATION**
1. ALL GROUND RODS ARE TO BE GALVANIZED STEEL.
 2. ALL GROUND CONDUCTORS SHALL BE #2 AWG TIN PLATED SOLID COPPER.
 3. GROUND RODS SHALL BE DRIVEN TO A DEPTH SUCH THAT THE TOP OF THE ROD IS 10" BELOW FINISHED GRADE.
 4. HORIZONTAL GROUND RODS SHALL BE PERMITTED FROM RWAC & ELECTRICAL DEPARTMENTS TO GROUND RODS.
 5. EXTERNAL GROUND RING MAY TAKE THE PHYSICAL FORM OF A "C" ANGLE OR AN "L" SHAPE IN CASES WHERE ALL SIDES OF THE BUILDING ARE ACCESSIBLE.
 6. GROUND RODS ARE TO BE PLACED ALONG GROUND RING AT A MINIMUM OF FOUR (4) FEET SPACING.
 7. ALL GROUND RINGS, REGARDLESS OF SIZE OR DIAMETER, SHALL BE A MECHANICAL OR WELDED JOINT. AFTER MECHANICAL JOINTS ARE MADE, ALL JOINTS SHALL BE EQUIVALENT TO THE ORIGINAL JOINTS. WHEN USING NON-WELDED MECHANICAL JOINTS, SUCH AS BOLT-ON LUGS, THE FOLLOWING NOTES SHALL BE FOLLOWED.
 8. ENSURE GOOD ELECTRICAL CONTACT. THE MATING SURFACES SHOULD BE CLEAN AND FLAT.
 9. 0-HOLED LUGS ARE REQUIRED ON ALL #2 AWG OR LARGER GROUND LEADS MECHANICALLY ATTACHED TO THE M.G.B.
 10. GROUND LEADS WHERE THE SIZE OF THE WIRE (#6 AWG OR LARGER) MIGHT EXERT SUFFICIENT STRESS ON THE LUG TO LOOSEN A SINGLE MOUNTING BOLT.
 11. UNLESS STEEL MOUNTING HARDWARE (NUTS, BOLTS, ETC.) IS REQUIRED ON ALL OUTSIDE CONNECTIONS AS WELL AS ON E.M.S.B. AND I.G.B., AND IS PREFERRED FOR ALL OTHER CONNECTIONS.
 12. E LUG HOLES AND STAINLESS BOLT SIZES ARE TO BE CHosen TO MATCH THE MOUNTING HOLE SIZES, SO THAT THERE IS MINIMAL PLAY IN THE MECHANICAL ASSEMBLY PRIOR TO TIGHTENING THE NUTS. SPLIT RING TYPE LOCK WASHERS SHOULD BE USED TO PREVENT THE NUTS FROM LOOSENING.



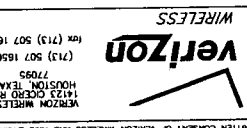
TYPICAL MONOPOLE GROUNDING
 N.T.S.



INSPECTION WELL, ALL PRODUCTS #5198-36 12"Øx35" DEEP, OR EQUAL.
 MECHANICAL CONNECTION (TWO HOLE LUGS (TYP.))
 EXOTHERMIC CONNECTION WELD (LETTER DENOTES CAD WELD CONNECTION TYPE)
 5/8" x 8'-0" GALVANIZED STEEL GROUND ROD
 CAD WELDED TO GROUND LOOP.

ALL LINES SHOWN SHALL BE #2 TIN PLATED UNLESS OTHERWISE IDENTIFIED.

REGISTERED PROFESSIONAL ENGINEER
 D. E. BALLARD
 48470
 STATE OF TEXAS

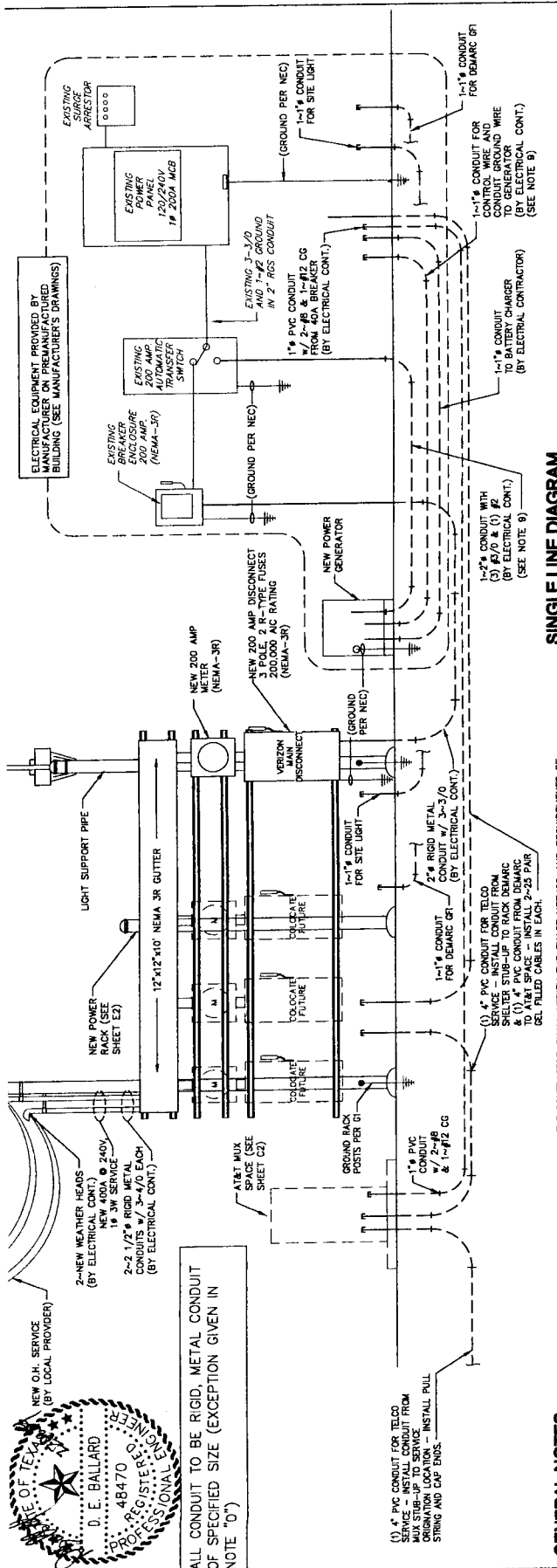


AXIS
 ENGINEERING, INC.
 8000 WINDYBROOK DRIVE
 SUITE 140
 HOUSTON, TEXAS 77056
 TEL: 713-466-3007
 FAX: 713-466-3007
 www.axis-engineering.com
 AXIS PROJECT NUMBER
 01-081209-007

DATE	DESCRIPTION
01-08-09	ISSUE FOR PERMIT
01-08-09	ISSUE FOR CONSTRUCTION
01-08-09	ISSUE FOR AS-BUILT
01-08-09	ISSUE FOR FINAL
01-08-09	ISSUE FOR ARCHIVE

SCALE	1"=10'
DATE	01-08-09
BY	01-08-09
CHECKED BY	01-08-09
DESIGNED BY	01-08-09
FILE NAME	01-08-09

E1
 VERIZON WIRELESS
 PECAN GROVE



SINGLE LINE DIAGRAM

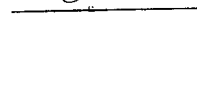
LOCATION & REMARKS	QTY	LOAD PER WIRE (VA)	WIRE SIZE	NO.	WIRE	LOAD PER WIRE (VA)	QTY	LOCATION & REMARKS
RECEPT-1 (1000)	1	1720	#10	1	#10	1720	1	HVAC-1 (NON-CONTINUOUS)
RECEPT-2 (1000)	1	1720	#10	2	#10	3440	2	HVAC-2 (NON-CONTINUOUS)
RECEPT-3 (500)	1	860	#10	1	#10	860	1	INTERIOR EXTERIOR LIGHTS
RECEPT-4 (250)	1	430	#10	1	#10	430	1	BASEBOARD HEATER & THERM
RECEPT-5 (250)	1	430	#10	1	#10	430	1	BASEBOARD HEATER & THERM
RECEPT-6 (250)	1	430	#10	1	#10	430	1	BASEBOARD HEATER & THERM
RECEPT-7 (250)	1	430	#10	1	#10	430	1	BASEBOARD HEATER & THERM
RECEPT-8 (250)	1	430	#10	1	#10	430	1	BASEBOARD HEATER & THERM
AT&T POWER	1	860	#8	35	#8	30100	35	HVAC CONTROLLER
SPACE								SPACE
SUBTOTAL CONTINUOUS		4300		41		4300	41	TOTAL KVA CONTINUOUS
SUBTOTAL NON-CONTINUOUS		2150		41		2150	41	TOTAL KVA NON-CONTINUOUS
TOTAL		6450		82		6450	82	TOTAL KVA

ALL A.I.C. = 10,000
 ALL WIRES ARE THWN-2
 CALCULATED LOAD = 197.55 AMPS

- ELECTRICAL NOTES:**
- CONTRACTOR SHALL VERIFY THE EXACT METHOD AND REQUIREMENTS OF SERVICE BY UTILITY COMPANIES DURING BIDDING AND INCLUDE ALL COST FOR A COMPLETE SYSTEM IN THE BID.
 - PVC SCHEDULE 40 MAY BE USED AS PERMITTED BY CODE IN LIEU OF RIGID STEEL CONDUIT FOR UNDERGROUND APPLICATIONS ONLY. INSTALL USE RIGID STEEL CONDUIT FOR ALL ABOVE GROUND CONDUIT (GREEN).
 - REFER TO GROUNDING NOTES ON SHEET G. ELECTRICAL CONTRACTOR MUST REVIEW EQUIPMENT GROUNDING GUIDELINE FOR CELLULAR RADIO INSTALLATIONS AND CONFORM TO RECOMMENDATIONS THEREIN.
 - ELECTRICAL EQUIPMENT, CIRCUIT PROTECTIVE DEVICES, BUSSES AND SWITCHES SHALL BE RATED TO INTERRUPT OR WITHSTAND SHORT CIRCUIT FAULTS GREATER THAN THE AVAILABLE FAULT CURRENT.

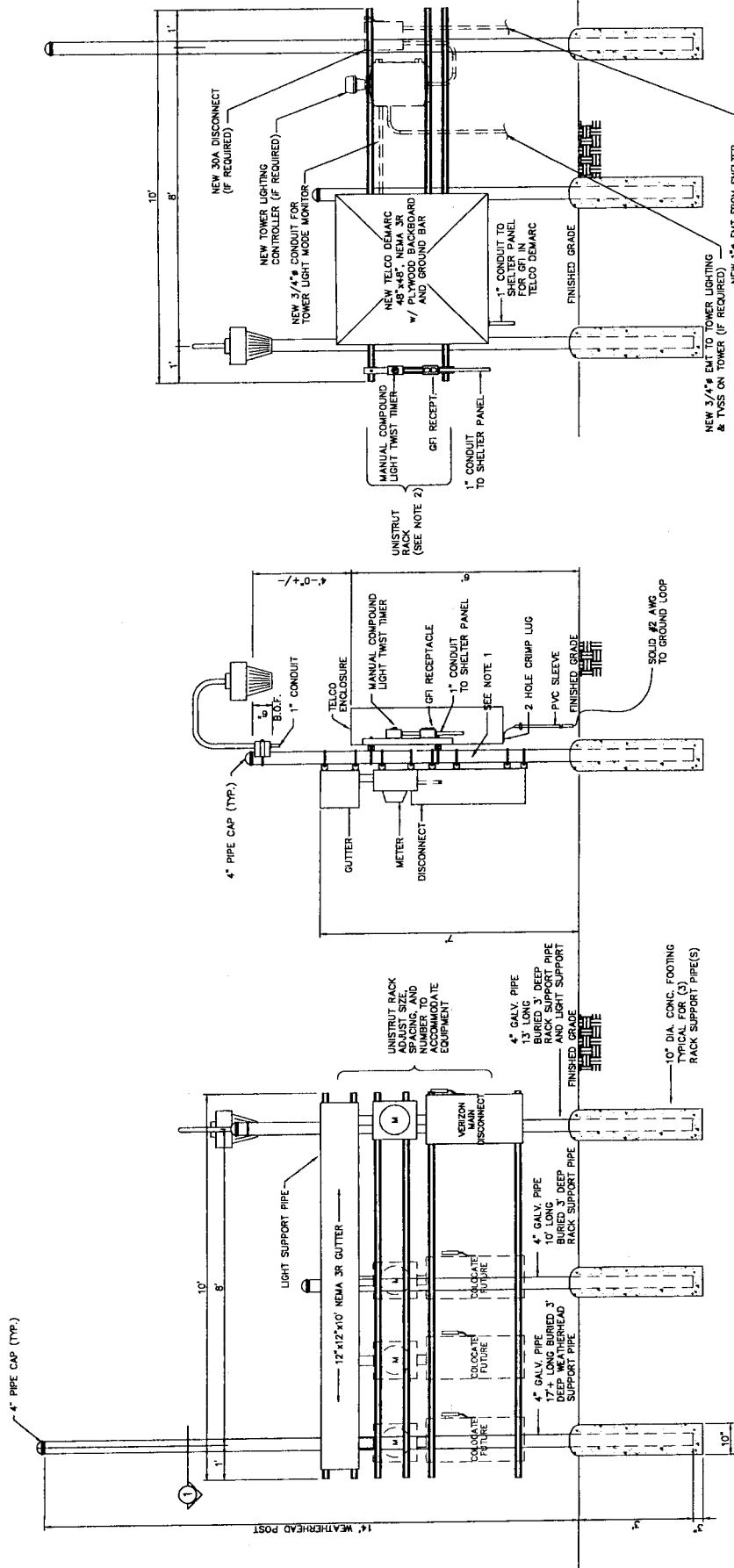
- GENERAL NOTES:**
- ALL WORKS AND MATERIALS SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) ENFORCED BY LOCAL JURISDICTION. ALL MATERIALS AND EQUIPMENT SHALL BE LISTED AND APPROVED BY AN APPROVED LISTING AGENCY. NOTHING IN THESE PLANS OR SPECIFICATIONS SHALL BE CONSTRUED AS TO PERMIT WORK NOT CONFORMING TO THE MOST STRINGENT OF THESE CODES. SHOULD CHANGES BE NECESSARY THESE REQUIREMENTS SHALL BE IMMEDIATELY (SPECIALY BEFORE BIDDING SUBMITTAL) NOTIFY THE ENGINEER IN WRITING AND CEASE WORK ON PARTS OF THE CONTRACT WHICH ARE AFFECTED.
 - THE CONTRACTOR SHALL MAKE A SITE VISITATION PRIOR TO BIDDING AND NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCIES. THE CONTRACTOR ASSUMES ALL LIABILITY FOR FAILURE TO COMPLY WITH THIS PROVISION.
 - THE EXTENT OF THE WORK IS INDICATED BY THE DRAWINGS, SCHEDULES, CONDITIONS OF THE CONTRACT. THE WORK SHALL CONSIST OF FURNISHING ALL LABOR, EQUIPMENT, MATERIALS AND SUPPLIES NECESSARY FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM INCLUDING WORK NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND OPERATIONAL SYSTEMS.
 - THE DRAWINGS INDICATE DIAGRAMMATICALLY THE DESIRED LOCATIONS OR ARRANGEMENTS OF THE CONDUIT RUNS, OUTLETS, EQUIPMENT, ETC. AND SHALL BE FOLLOWED IN EXECUTING THE WORK SO AS TO SECURE THE FEEDERS AND BRANCH CIRCUITS FROM MECHANICAL DAMAGE AND PROTECTED FROM OVERHEATING AND BRANCH CIRCUITS RUN IN NONMETALLIC CONDUIT SHALL INCLUDE A CODE SIZED EQUIPMENT GROUNDING CONDUCTOR HAVING GREEN INSULATION. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROPERLY CONNECTED TO MAINTAIN ELECTRICAL CONTINUITY.
 - WIRING SHALL BE COPPER TYPE THWN-2.
 - ALL DIRECT BURIED GROUNDING CONDUCTORS SHALL BE #2 SOLID, BARE TINNED COPPER.
 - CONTRACTOR SHALL CHECK RESISTANCE BETWEEN GROUNDING (ELECTRODES) AND COLD WATER PIPING AND TELEPHONE EQUIPMENT. MAXIMUM RESISTANCE SHALL NOT EXCEED 25 OHMS.
 - ALL TELEPHONE EQUIPMENT, GROUNDING CONNECTIONS AND SPLICES SHALL BE MADE WITH BURNDY "HY-GROUND" CONNECTORS EXCEPT WHERE NOTED OTHERWISE.
 - PAINT AT ALL GROUND CONNECTIONS SHALL BE REMOVED.
 - CONTRACTOR SHALL CHECK RESISTANCE BETWEEN GROUNDING (ELECTRODES) AND COLD WATER PIPING AND TELEPHONE EQUIPMENT. MAXIMUM RESISTANCE SHALL NOT EXCEED 25 OHMS.
 - ALL INFORMATION AVAILABLE AT THE TIME AND ARE NOT GUARANTEED. DISCREPANCIES SHALL BE HEAVY DUTY - MIN. 10,000 AIC RATED. ACCEPTABLE MANUFACTURERS: G.E., SQUARE D, WESCO/CUTLER HAMMER OR SIEMENS.

- CONTRACTOR SHALL VERIFY THE EXACT METHOD AND REQUIREMENTS OF SERVICE BY UTILITY COMPANIES DURING BIDDING AND INCLUDE ALL COST FOR A COMPLETE SYSTEM IN THE BID.
- PVC SCHEDULE 40 MAY BE USED AS PERMITTED BY CODE IN LIEU OF RIGID STEEL CONDUIT FOR UNDERGROUND APPLICATIONS ONLY. INSTALL USE RIGID STEEL CONDUIT FOR ALL ABOVE GROUND CONDUIT (GREEN).
- REFER TO GROUNDING NOTES ON SHEET G. ELECTRICAL CONTRACTOR MUST REVIEW EQUIPMENT GROUNDING GUIDELINE FOR CELLULAR RADIO INSTALLATIONS AND CONFORM TO RECOMMENDATIONS THEREIN.
- ELECTRICAL EQUIPMENT, CIRCUIT PROTECTIVE DEVICES, BUSSES AND SWITCHES SHALL BE RATED TO INTERRUPT OR WITHSTAND SHORT CIRCUIT FAULTS GREATER THAN THE AVAILABLE FAULT CURRENT.
- CONTRACTOR SHALL REMOVE ALL TEMPORARY GROUNDING PROVIDED DURING TOWER INSTALLATION AND REPLACE WITH PERMANENT GROUNDING PER THE GROUNDING PLAN AND DETAILS.
- CONTRACTOR SHALL PROVIDE ALL TEMPORARY POWER ON JOB SITE INCLUDING SERVICE POLE, ENTRY CONDUCTORS, METER AND DISCONNECTS AS REQUIRED. IF TEMPORARY POWER IS TO BE PROVIDED BY THE CONTRACTOR SHALL PROVIDE A 100% MIN. SIZE GENERATOR TO SUPPLY DEMAND.
- ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL BUILDING CODE AND ALL OTHER CODES HAVING JURISDICTION, INCLUDING ALL EQUIPMENT AND CONDUIT BANDING.
- ALL WIRE IN ALL SERVICE AREAS SHALL BE TYPE THWN-2 COPPER, MINIMUM SIZE #12 AWG. EXCEPT CONTROL WIRING. ALL WIRE UNDERGROUND AND IN VET SERVICE AREAS SHALL BE TYPE THWN-2 COPPER, MINIMUM SIZE #12 AWG. EXCEPT CONTROL WIRING.
- ELECTRICAL CONTRACTOR SHALL CONNECT GROUNDING FROM ELECTRICAL EQUIPMENT ON EXTERIOR OF SHELTER (M.T.S. & DISCONNECT) TO EXTERNAL GROUND LOOP.
- ELECTRICAL CONTRACTOR SHALL COORDINATE DRIP POLE SET WITH LOCAL UTILITY COMPANY.
- SPECIFICATIONS IN THESE DOCUMENTS.
- STUB UP LOCATIONS FOR ELECTRICAL AND TELEPHONE SHALL BE COORDINATED WITH VERIZON AND SHELTER MANUFACTURER DRAWINGS.
- EXTERIOR CONDUIT TO BE RGS TO 18" BELOW GRADE EXCEPT IN AREAS OF VEHICLE TRAFFIC WHERE IT SHALL BE 24" BELOW GRADE.
- INSTALL PULL BOXES AS REQUIRED BY N.E.C.



ALL CONDUIT TO BE RIGID, METAL CONDUIT OF SPECIFIED SIZE (EXCEPTION GIVEN IN NOTE "O")

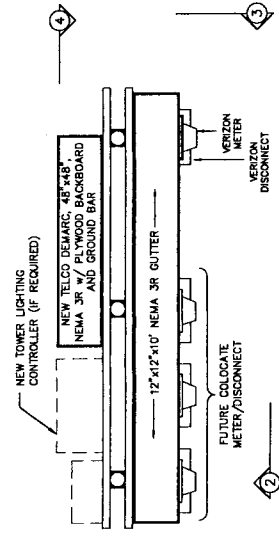
(1) #4 PVC CONDUIT FOR TELCO SHELTER STUB-UP TO RACK DEMARK (BY ELECTRICAL CONT.)
 (2) #4 RIGID METAL CONDUIT W/ 3-3/0 (BY ELECTRICAL CONT.)
 (3) #4 PVC CONDUIT FOR DEMARK GR (BY ELECTRICAL CONT.)
 (4) #4 PVC CONDUIT WITH SHELTER STUB-UP TO RACK DEMARK (BY ELECTRICAL CONT.)
 (5) #4 RIGID METAL CONDUIT W/ 3-3/0 (BY ELECTRICAL CONT.)
 (6) #4 PVC CONDUIT FOR TELCO SHELTER STUB-UP TO RACK DEMARK (BY ELECTRICAL CONT.)
 (7) #4 RIGID METAL CONDUIT W/ 3-3/0 (BY ELECTRICAL CONT.)
 (8) #4 PVC CONDUIT FOR DEMARK GR (BY ELECTRICAL CONT.)
 (9) #4 PVC CONDUIT WITH SHELTER STUB-UP TO RACK DEMARK (BY ELECTRICAL CONT.)
 (10) #4 RIGID METAL CONDUIT W/ 3-3/0 (BY ELECTRICAL CONT.)



4 SERVICE POLE & RACK ENCLOSURE - TELCO

3 SERVICE POLE & RACK ENCLOSURES - POWER/TELCO

2 SERVICE POLE & RACK ENCLOSURE - POWER



1 SERVICE POLE & RACK ENCLOSURES

NOTE:
 1. TELCO ENCLOSURE AND SERVICE EQUIPMENT SHALL BE INSTALLED AND SUPPORTED TO RACK UTILIZING UNISTRUT AND APPLICABLE HARDWARE.
 2. INSTALL & SPACE UNISTRUTS TO SUPPORT REQUIRED & FUTURE ELECTRICAL EQUIPMENT.

GENERAL NOTES:

- COORDINATE ACCESS AND WORK SCHEDULES WITH VERIZON.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE DRAWINGS AND SPECIFICATIONS INCLUDED WITHIN.
- CONTRACTOR SHALL PROVIDE ADEQUATE FACILITIES IN ACCORDANCE WITH ALL LOCAL AND NATIONAL SAFETY CODES.
- DISCREPANCIES FOUND IN THE FIELD SHOULD BE CALLED OUT IMMEDIATELY TO THE ENGINEER PRIOR TO PROCEEDING WITH ANY WORK.
- CONTRACTOR SHALL REVIEW AND BE FAMILIAR WITH THE EXISTING SITE CONDITIONS AS WELL AS THOSE PROPOSED PRIOR TO STARTING ANY WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY. CONTRACTOR SHALL CONTACT TEXAS ONE CALL (1-800-245-4545), ANY UTILITIES OPERATING BY CALLING (1-800-245-4545), ANY UTILITIES DAMAGED BY CONSTRUCTION OR RELATED TRAFFIC WILL BE REPAIRED BY THE CONTRACTOR AT HIS SOLE EXPENSE.
- THE COMPOUND PAVING SHALL BE INSTALLED AS SPECIFIED IN THESE DOCUMENTS.

EXCAVATION AND FILL

- UNLESS INDICATED OTHERWISE, PROJECT SITE AREAS OUTSIDE OF PLATFORMS SHALL BE GIVEN UNIFORM SLOPES BETWEEN POINTS FOR WHICH FINISHED GRADES ARE SHOWN ON BETWEEN SUCH POINTS AND EXISTING ESTABLISHED GRADES ARE SHOWN ON BETWEEN SUCH POINTS AND EXISTING ESTABLISHED GRADES. SITES SHALL NOT HAVE A SLOPE GREATER THAN 0.3" PER FOOT. CARE SHALL BE TAKEN TO SALVAGE THE EXISTING LIMESTONE AND REGRADE THE EXISTING SITE WITH THE SALVAGE LIMESTONE.
- MATERIAL TO BE EXCAVATED SHALL BE NON-CLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED IN EXCAVATING AND GRADING. THE CONTRACT PRICE IS UNDERSTOOD TO COVER THE REMOVAL OF ALL SUCH MATERIALS TO THE DEPTH AND ELEVATION INDICATED ON THE DRAWING AND AS HEREIN SPECIFIED.
- REMOVE FROM THE SITE ALL DEBRIS AND EXCAVATED MATERIALS.
- ALL FILL MATERIAL SHALL BE SELECT FILL CONSISTING OF A CLEAN SAND OR A SANDY CLAY WHOSE PLASTICITY INDEX IS LESS THAN 20 AND SHALL BE FREE FROM DEBRIS AND ALL OTHER DELETERIOUS MATERIALS, INCLUDING VEGETATION.
- MATERIAL AT THIS SITE IS NOT CONSIDERED SUITABLE FOR FILL UNLESS CLASSIFIED BY THE PROJECT ENGINEER.
- PLACE SELECT FILL IN UNIFORM LAYERS OF NOT MORE THAN 18" LOOSE LAYERS. COMPACT EACH LAYER TO 95% OPTIMUM MOISTURE CONTENT PRIOR TO PLACING NEXT LAYER.
- VERIZON HAS THE RIGHT TO REQUEST TESTS OF THE SELECT FILL COMPACTION OF FILL BY A SOIL ENGINEER. SUCH TESTS SHALL BE PAID FOR BY VERIZON.
- WORKS PERFORMED THAT DOES NOT CONFORM TO THESE SPECIFICATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACT PRICE IS UNDERSTOOD TO COVER THE REPAIRS WITHOUT INCREASE IN CONTRACT PRICE.

TRENCHING AND FILL

- EXCAVATION SHALL BE BY OPEN CUT FROM THE SURFACE. NO TUNNELING WILL BE ALLOWED. ALL EXCAVATION SHALL BE UNCLASSIFIED AND THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL FROM THE SITE OF ALL EXCAVATED MATERIAL.
- TRENCHES SHALL BE BACK FILLED WITH SELECT, STABILIZED SAND (MINIMUM OF 1/2" SAND AND 1/2" GRAVEL) OR STABILIZED SAND AND GRAVEL. SAND AND GRAVEL SHALL BE PLACED EVENLY AND CAREFULLY AROUND AND OVER THE PIPE IN 1 INCH MAXIMUM LAYERS UNTIL ONE (1) FOOT OF THE COVER EXISTS OVER THE PIPE. THE REMAINDER OF THE BACK FILL SHALL BE PLACED AND COMPACTED IN MAXIMUM ONE (1) FOOT LAYERS. THE CONTRACTOR SHALL PROVIDE SUFFICIENT MOISTURE TO EACH LAYER TO MAINTAIN OPTIMUM MOISTURE CONTENT AND SHALL BE COMPACTED WITH MECHANICAL HAND TAMPS TO AT LEAST 95% OF AIRDRIED DENSITY TEST METHOD 1-99.
- PROTECT EXISTING IN THE NATURAL GROUND THAT ARE WITHIN THREE (3) FEET OF A STRUCTURAL FOUNDATION SHALL BE FILLED WITH GEMENT - STABILIZED SAND AS SPECIFIED IN ITEM 7" UNDER TRENCHING AND FILL. BACK FILL SHALL BE PLACED IN ONE (1) FOOT LAYERS AND COMPACTED AS SPECIFIED IN ITEM 7".

SITE PREPARATION

IN ORDER TO MINIMIZE THE CONSTRUCTION PROBLEMS WHICH MAY DEVELOP IF UNDESIRABLE WEATHER OCCURS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERIODS OF RAINFALL. THE CONTRACTOR SHALL PROVIDE PROPER CONSTRUCTION DRAINAGE TO MAINTAIN A RELATIVELY DRY CONSTRUCTION SITE PRIOR TO STARTING ANY WORK AT THE SITE.

CONCRETE NOTES:

- THE STRUCTURAL ADEQUACY TO THE FORMS, TIES, STRIPS, SHORING, AND BRACING SHALL CONFORM TO THE REQUIREMENTS OF ACI STANDARD 347.
- DEFINING AND FABRICATING OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI-315, LATEST EDITION.
- USE ALL CONTINUOUS BARS 3/8 BAR DIAMETERS AT SPICES UNLESS OTHERWISE NOTED.
- SUPPORT SURFACE REINFORCEMENT ON CHAIRS AND PIER REINFORCEMENT ON SLEDS.
- FINISHED SURFACE OF FLOOR SLABS SHALL BE PLANNED TO A STRAIGHT EDGE PLACED ANYWHERE ON SLAB IN ANY DIRECTION).
- COMPONENT MATERIALS
 - CEMENT: PORTLAND ASTM C-150 TYPE 1, NON-ALKALINE FOR GRADE BEAMS.
 - AGGREGATE: WASHED, NATURAL SAND OR MANUFACTURED.
 - SAND CONFORMING TO ASTM-C-33.
 - CRUSHED GRAVEL OR CONCRETE AGGREGATE GRAVEL TO CONFORM TO ASTM-C-883.
 - MAXIMUM AGGREGATE SIZE: GENERAL-NOT LARGER THAN ONE-FIFTH OF THE NARROWEST DIMENSIONS BETWEEN FORMS OF THE CONCRETE.
 - CONCRETE SHALL BE PLACED WITHIN FIVE (5) MINUTES OF MIXING AND WITHIN THREE-FOURTHS OF THE MINIMUM CLEAR SPACING BETWEEN REINFORCING BARS.
 - MIXING WATER: POTABLE AND CLEAN.
- CONCRETE MIXES AND STRENGTHS

STRENGTH	1 1/2"	MAX. W/	CEMENT RATIO	SUJME
3000PSI	1 1/2"	MAX. 0.53	4 1/2"	
3000PSI	3/4"	MAX. 0.40	8 1/2"	

 - 3000PSI 3/4" MAX. 0.40
 - 3000PSI 1 1/2" W/APPR. SUPER PLASTICIZER
 - PUMP MIX: 112.2 LB BY DSD WEIGHT, +/- 10% W/APPR. SUPER PLASTICIZER.
 - ALL CONCRETE PLACED UNDER SLURRY MUST BE 5000 PSI AND CONTAIN:
 - MIN. 850 POUNDS OF CEMENTITIOUS MATERIAL PER CUBIC YARD OF CONCRETE.
 - MIN. 100 POUNDS OF WATER PER CUBIC YARD OF CONCRETE AFTER 4 HOURS.
 - REFER TO STRUCTURAL DRAWINGS FOR SCHEDULES, IF NO SCHEDULES ARE GIVEN.
 - STRENGTHS ARE GIVEN FOR CERTAIN ITEMS, USE 5,000 PSI MIN.
- ADVERTURES
 - OPTIONAL USE ADVERTURES MAY BE USED TO ACHIEVE THE REQUIRED PROPERTIES OF THE CONCRETE OR TO IMPROVE THE ADHESION BETWEEN THE CONCRETE AND REINFORCEMENT.
 - APPROVAL TO SUBMIT WRITTEN DATA FOR APPROVED SPECIFICATIONS.
 - USING ADVERTURES, DATA SHALL GIVE ASTM CLASSIFICATION, BASIC INGREDIENTS, AND INSTRUCTIONS FOR USE, (CALCIUM SULFATE, SULFATE RESISTANT, SULFATE RESISTANT).
 - CLASSIFICATION: CONFORM TO APPROPRIATE STANDARDS OF ASTM C-494, AS FOLLOWS:
 - TYPE A: RETARDING
 - TYPE B: ACCELERATING
 - TYPE C: WATER REDUCING AND RETARDING COMBINATION
 - TYPE D: WATER REDUCING AND RETARDING
 - TYPE E: WATER REDUCING, HIGH RANGE ADMIXTURE (HRWR)
 - TYPE F: WATER REDUCING, HIGH RANGE, AND RETARDING
 - TYPE G: ADMIXTURES (HRWR)
 - HR-EXTRACTED CEMENT ASTM C-75 TYPE 1
 - AMOUNT: 3% FOR 3/4" INCH AGGREGATE
 - TOLERANCES: PLUS/MINUS 1% PER ASTM C-231 OR C-138.
 - ADVERTURES SHALL BE USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. TYPE "C" FLY ASH CONFORMING TO ASTM-C-618 @ 15% TO 20% AS REQUIRED. USE TYPE "F" FLY ASH CONFORMING TO ASTM-C-618 FOR SULFATE ENVIRONMENTS.
- TEMPERATURE
 - A. COLD WEATHER
 - TEMPERATURES: THE CONCRETE SHALL HAVE A TEMPERATURE OF AT LEAST 50°.
 - TEMPERATURES: THE CONCRETE SHALL HAVE A TEMPERATURE OF AT LEAST 50°.
 - TEMPERATURES: THE CONCRETE SHALL HAVE A TEMPERATURE OF AT LEAST 50°.
 - TEMPERATURES: THE CONCRETE SHALL HAVE A TEMPERATURE OF AT LEAST 50°.
 - B. HOT WEATHER
 - WHEN AMBIENT AIR TEMPERATURE IS 85° OR ABOVE, RETARDER
 - TEMPERATURE OF CONCRETE MIX WITHOUT RETARDER SHALL NOT EXCEED 100° EXCEED 90°.
 - TEMPERATURE OF CONCRETE MIX WITHOUT RETARDER SHALL NOT EXCEED 100° EXCEED 90°.
 - TEMPERATURE OF CONCRETE MIX WITHOUT RETARDER SHALL NOT EXCEED 100° EXCEED 90°.
 - TEMPERATURE OF CONCRETE MIX WITHOUT RETARDER SHALL NOT EXCEED 100° EXCEED 90°.

VERIZON WIRELESS
1412 CEDAR BLVD
HOUSTON, TX 77002
(713) 507 1820
FOR (713) 507 1818

GENERAL NOTES & SPECIFICATIONS
PECAN GROVE SITE

AXIS
ENGINEERING, INC.
2001 W. IRLING BLVD
HOUSTON, TEXAS 77056
PHONE: 713-460-9022
FAX: 713-460-9027
WWW.AXIS-ENGINEERING.COM

01-081209-007

DATE:	BY:
CHECKED BY:	DATE:
DATE:	DATE:
DATE:	DATE:

N1

VERIZON WIRELESS
PECAN GROVE

- HANDLING
 - TRANSPORTATION OPERATIONS SHALL CONFORM TO ASTM C-84.
 - DO NOT ADD WATER TO THE MIX AFTER THE TRUCK HAS LEFT.
 - PLANT UNLESS AUTHORIZED BY OWNER AUTHORIZED MATERIAL INSPECTOR.
 - USE NO CONCRETE WHICH HAS BEEN HELD IN MIXER MORE THAN ONE HOUR UNLESS APPROVED REASONING ADJUSTMENTS HAVE BEEN MADE.
 - RETEMPERING OF PARTIALLY HARDENED CONCRETE WILL NOT BE PERMITTED.
- DEPOSITING CONCRETE
 - APPLICABLE INSPECTORS SHALL BE NOTIFIED AT LEAST 24 HOURS BEFORE CONCRETE IS TO BE PLACED.
 - SKID STEERS FOR FOOTING AND SLABS SHALL BE APPROVED BY THE OWNER OR HIS REPRESENTATIVE BEFORE PLACING CONCRETE.
 - NO FOUNDATIONS SHALL BE PLACED ON BACK FILLED SOILS EXCEPT AS SPECIFIED IN EXAMINATION AND FILL.
- REMOVE WATER AND ALL FOREIGN WATER FROM FORMS AND EXCAVATIONS UNLESS OTHERWISE DIRECTED. WOOD FORMS AND SAWS SHALL BE THOROUGHLY WETTED JUST PRIOR TO PLACING. POSITION CONCRETE AS NEARLY AS PRACTICABLE IN ITS FINAL POSITION TO AVOID SEGREGATION DUE TO RE-HANDLING OR FLOWING.
- PLACE NO CONCRETE UNTIL ALL REINFORCING STEEL HAS BEEN BUILT INTO THE CONCRETE HAS BEEN INSPECTED AND APPROVED.
- NO CONCRETE THAT HAS PARTIALLY HARDENED, BECOME CONTAMINATED BY FOREIGN MATERIALS OR BEEN REINFORCED SHALL BE USED.
- CONTINUITY OF PLACING
 - CONCRETING SHALL GENERALLY BE CARRIED ON AS A CONTINUOUS OPERATION THROUGHOUT THE ENTIRE DAY.
 - WHEN CONSTRUCTION JOINTS ARE NECESSARY THEY SHALL BE MADE AND LOCATED AS INDICATED ON THE DRAWINGS OR AS SPECIFIED.
 - NO ADDITIONAL CONSTRUCTION JOINTS WILL BE PERMITTED WITHOUT APPROVAL OF OWNER.
 - IF FOR ANY REASON THE CONCRETE PLACEMENT PROCEDURE IS UNACCEPTABLE, CONCRETE SHALL BE CAREFULLY WORKED AROUND REINFORCEMENT AND EMBEDDED FIBERS, ALONG SURFACES, AND INTO CORNERS OF FORMS.
 - VEHICLES AND FORMS ARE TO BE OPERATED UNDER EXPERIENCED SUPERVISORS AND SHALL BE CONSTRUCTED TO WITHSTAND THEIR ACTION.
 - A FOUR DROP LIMIT OF 6 FEET SHALL BE USED IN PLACEMENT OF ALL CONCRETE.
- SPECIFICATIONS FOR THE INSTALLATION OF IN-GROUND REINFORCING CAGES:
 - IT IS RECOMMENDED THAT ALL COLD JOINTS BE MADE A MINIMUM OF 12" FROM ANY WALL OR COLUMN.
 - ALL JOINTS SHALL BE PROTECTED FROM WEATHER AND CLEAN WATER PRIOR TO THE INSTALLATION OF THE UPPER PORTION OF ANY COLUMN.
 - ALL JOINTS WILL BE WET AT THE TIME OF CONCRETE POUR.
- COLD JOINT SPECIFICATIONS:
 - CONTRACTOR SHALL SPECIFICALLY INSURE THAT THE METHOD EMPLOYED WILL MAINTAIN ROBUST CLEARANCE FOR THE FULL LENGTH OF THE CAGE.

- TYPE "A"
 - MATERIAL SHALL BE CRUSHED STONE PRODUCED FROM A NATURALLY OCCURRING SINGLE SOURCE. CRUSHED GRAVEL OR UNCRUSHED GRAVEL SHALL NOT BE ACCEPTED FOR TYPE "A" MATERIAL. NO BLENDING OF SOURCES AND/OR ADDITIVE MATERIALS WILL BE ALLOWED IN TYPE "A" MATERIAL.
- GRADE 2
 - TRIAxIAL CLASS 1 TO 2.3; MIN. COMPRESSIVE STRENGTH, PSI: 35 AT 0 PSI LATERAL PRESSURE AND 175 AT 15 PSI LATERAL PRESSURE.
- MASTER GRADING

2-1/2"	0
NO. 4	0-10
NO. 10	4-75
NO. 40	6-85

MAX. LL 40
MAX. PL BALL MILL 12
MIN. BALL MILL 12
MAX. INCREASE IN PASSING 45
NO. 40 20

LIMESTONE BASE SPECIFICATIONS:
BASE MATERIAL SHALL BE CRUSHED LIMESTONE CONFORMING TO TxDOT ITEM 427 REQUIREMENTS FOR TYPE "A", GRADE 2 MATERIAL.

SITES LOCATED WITHIN A FLOOD HAZARD ZONE

- AT ALL SITES LOCATED WITHIN AN AREA OF ANY FLOOD HAZARD ARE TO HAVE TOP OF CONCRETE OR TOP OF GRADING, IN THE CASE OF A PLATFORM FOUNDATION, AT LEAST 1 FOOT ABOVE THE FLOOD HAZARD ELEVATION FOR THIS SITE AREA. THIS IS TO INCLUDE GENERATOR AND FUEL PANS.
- ALL ELECTRICAL EQUIPMENT MUST BE INSTALLED ABOVE THE BASE FLOOD ELEVATION.