

III. B.

Memorandum

Department of Planning & Public Works



To: Planning and Public Works Committee

**From: Shawn Seymour, AICP
Senior Planner**

Date: December 5, 2011

RE: T.S.P. 36-2011 AT&T (1972 Baxter Road): A request to obtain approval for a Telecommunication Facility Siting Permit for a collocation of additional antennas and equipment on an existing high structure in a "R2" Residence District (15,000 sq. ft.) – zoned property located at the intersection of Baxter Road and a AmerenUE transmission line easement on the northeast side of Baxter Road (20S540700).

Summary

AT&T, has requested a collocation on an existing telecommunications high structure to allow for the location of an additional three (3) upgraded antennas to facilitate 4G LTE data service. The existing high structure is a AmerenUE transmission line tower located on Baxter Road on the north corner of its intersection with the AmerenUE transmission line easement. The existing antennas at this site were approved administratively under the previous City of Chesterfield telecommunications ordinance.

City of Chesterfield Ordinance 2391, which governs telecommunications and facilities siting, requires that the Planning Commission provide a venue for public hearing of requests for Telecommunications Siting Permits. Please note, the Commission does not provide a recommendation to the City Council, but rather generates a list of issues during the hearing. At the public hearing on September 26, 2011, no outstanding issues were identified that related to the request by AT&T.

Attached are copies of the site plan, elevations, boundary plat, and propagation study.

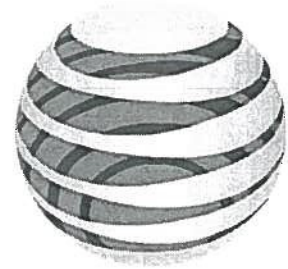
Respectfully submitted,

Shawn Seymour, AICP
Senior Planner

CC: Michael G. Herring, City Administrator
Rob Heggie, City Attorney
Michael O. Geisel, Director of Planning & Public Works
Aimee Nassif, Planning & Development Services Director

Attachments: AT&T 4G LTE Upgrade Packet

MO3520 UE BAXTER



at&t

LTE

114' - TRANSMISSION TOWER

ENGINEERING

2009 INTERNATIONAL BUILDING CODE
2008 NATIONAL ELECTRIC CODE
ANSI/TIA-222-G OR LATEST EDITION

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT CABINETS FOR AT&T'S CONDUCTORLESS TELECOMMUNICATIONS NETWORK. INSTALLATION OF (3) RRRs, (1) FIBER CABLE, (2) DC POWER CABLE, (1) RAYCAP SURGE PROTECTOR, (1) LTE RACK, (6) COAX, (3) PIPE MOUNTED PANEL ANTENNAS INCLUDING (3) TMA'S, (1) GPS ANTENNA ARE PROPOSED.

SITE INFORMATION

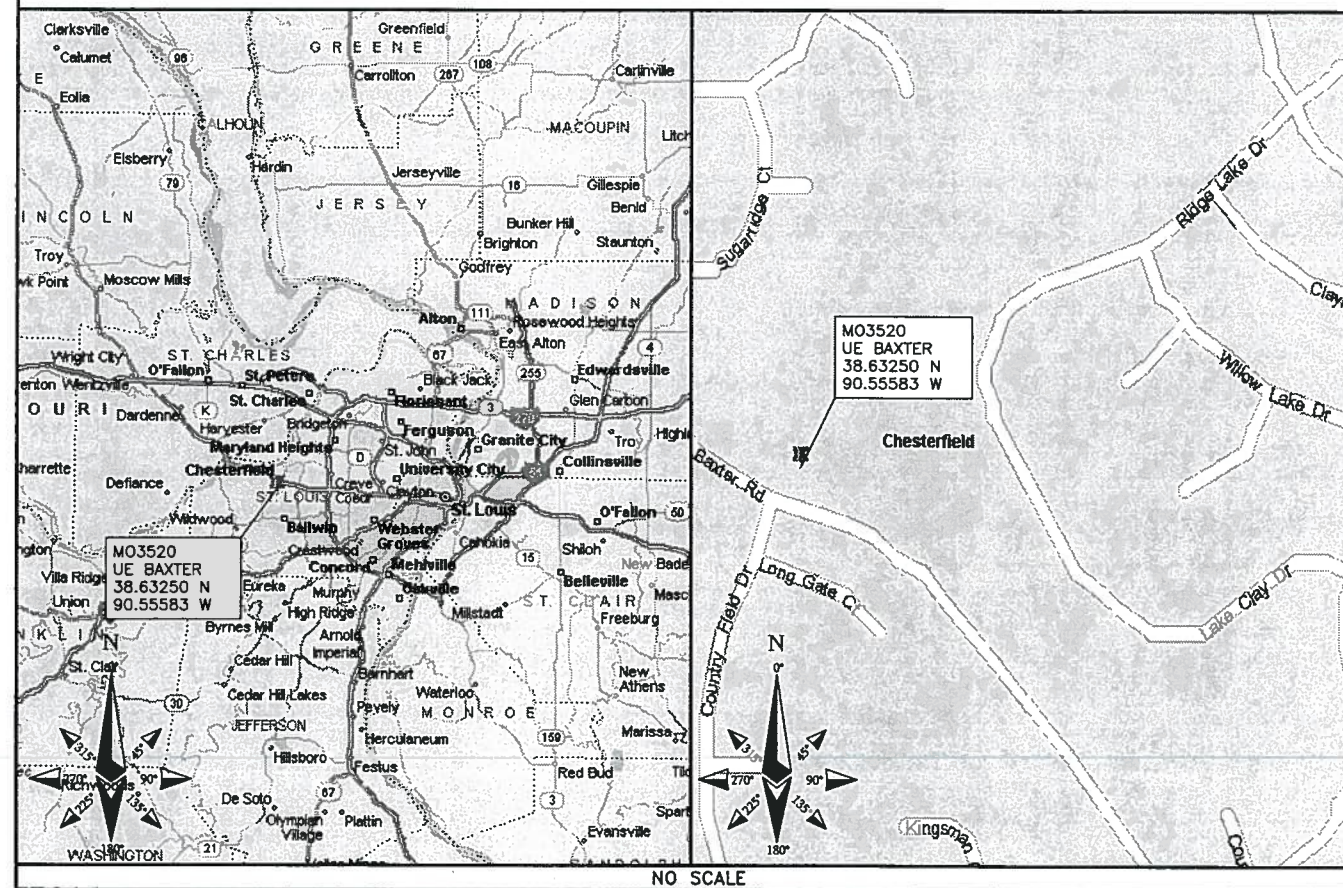
PROPERTY OWNER: AMEREN UE
ADDRESS:
TOWER OWNER: AMEREN UE
SITE NAME: MASON-LABADIE TOWER #32
SITE NUMBER: 588
SITE CONTACT: TIM WEBERS
(314) 554-2993
SITE ADDRESS: 1972 BAXTER ROAD
CHESTERFIELD, MO 63017
COUNTY: ST. LOUIS COUNTY
LATITUDE (NAD 83): 38° 37' 57.00" N
38.63250
LONGITUDE (NAD 83): 90° 33' 20.99" W
-90.55583
GROUND ELEVATION: 584' AMSL
RAD CENTER: 125' AGL
ZONING JURISDICTION: ST. LOUIS COUNTY, MO
ZONING DISTRICT: R-2
PARCEL #: 205540700
OCCUPANCY GROUP: U
CONSTRUCTION TYPE: V-B
POWER COMPANY: AMEREN MO
TELEPHONE COMPANY: AT&T
SITE ACQUISITION CONTACT: DOUG KONRATH
(314) 605-7542
RF ENGINEER: RON HUMPHREY
CONSTRUCTION MANAGER: KEN SHAW
(314) 210-8629

IF USING 11"X17" PLOT, DRAWINGS
WILL BE HALF SCALE

CONTACT INFORMATION

ENGINEER: 15450 S OUTER FORTY DR, SUITE 200
CHESTERFIELD, MO 63017
CONTACT: GEORGE P. XENOS
PHONE: (913) 687-9233

LOCATION MAPS



DRIVING DIRECTIONS

DIRECTIONS FROM NEAREST AT&T OFFICE:

TURN LEFT ONTO PINE ST FOR 0.9 MI, KEEP LEFT ONTO RAMP FOR 0.2 MI, TAKE RAMP RIGHT ONTO I-64 FOR 19.1 MI, AT EXIT 19B, TURN RIGHT ONTO RAMP FOR 0.2 MI, BEAR RIGHT ONTO LOCAL ROAD FOR 32 YDS, TURN LEFT ONTO CLARKSON RD FOR 1.1 MI, TURN LEFT ONTO BAXTER RD FOR 1.0 MI, TURN LEFT ONTO LOCAL ROAD FOR 32 YDS.

APPROVALS

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

AT&T RF: _____ DATE: _____
AT&T OPERATIONS: _____ DATE: _____
AT&T SITE AQ: _____ DATE: _____
OCI: _____ DATE: _____
PROPERTY OWNER: _____ DATE: _____
MUNICIPAL: _____ DATE: _____

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
Z-1	SITE SURVEY
Z-2	OVERALL SITE PLAN
Z-3	ENLARGED SITE PLAN
Z-4	SITE ELEVATIONS

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME



TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES
BEFORE YOU DIG IN MISSOURI, CALL MISSOURI ONE CALL

TOLL FREE: 1-800-344-7483 OR
www.mo1call.com

MISSOURI STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131



10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

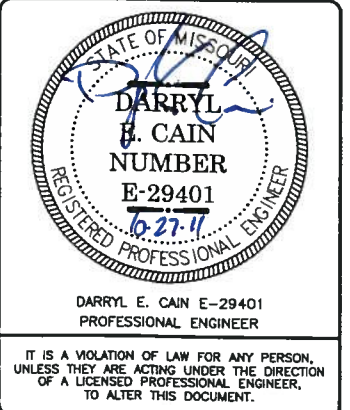
BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001848

PROJECT NO: 168986

DRAWN BY: MAK

CHECKED BY: GPX

REV	DATE	DESCRIPTION
1	10/27/11	CHANGED SITE ADDRESS
0	08/10/11	ISSUED FOR ZONING



MO3520
UE BAXTER
1972 BAXTER ROAD
CHESTERFIELD, MO 63017
LTE - TRANSMISSION TOWER

SHEET TITLE
TITLE SHEET

SHEET NUMBER

T-1

NOTE: Boundary configuration taken from area shown as "EXISTING UNION ELECTRIC COMPANY EASEMENT 6294 / 1433 on Plat of "Baxter Lakes Plat Four" as Recorded in Plat Book 169 at Pages 72-73 of The St. Louis Co. Records

NOTE: Tower site #588 lies in Zone "X" Per. FEMA MAP No. 291B9C0145 H
EFFECTIVE DATE: AUGUST 2, 1995

NOTES: Underground facilities, structures, and utilities have been plotted from best available records and/or evidence, therefore the relationship between proposed work and existing facilities, structures and utilities must be considered approximate, and it is the contractor's responsibility to determine their exact location and the existence of any not shown.

EASEMENTS:

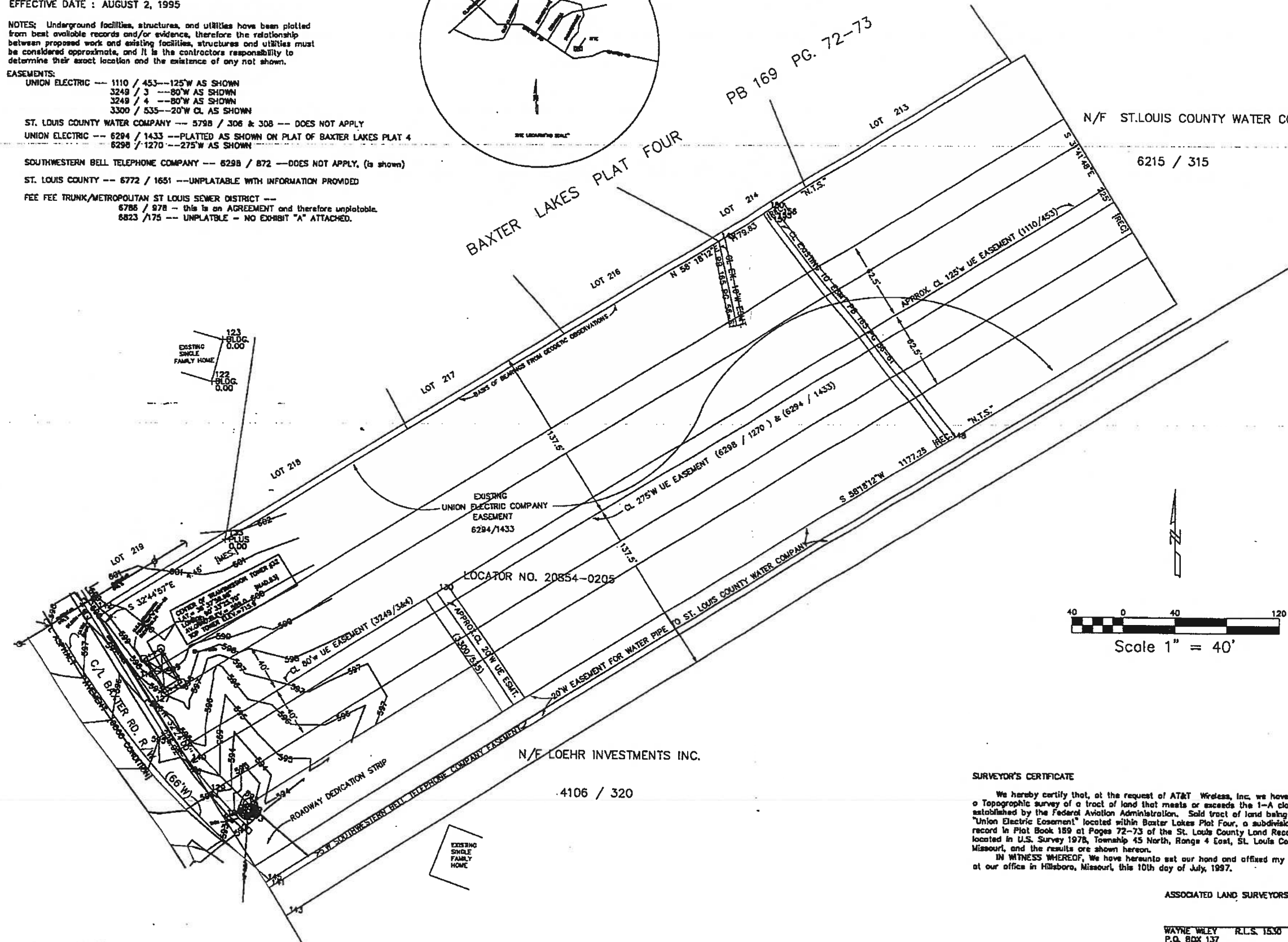
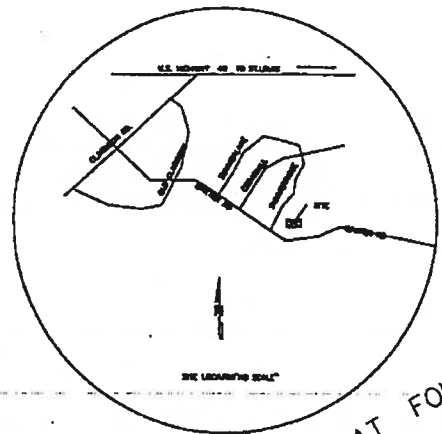
UNION ELECTRIC --- 1110 / 453 --- 125'W AS SHOWN
3249 / 3 --- 80'W AS SHOWN
3249 / 4 --- 80'W AS SHOWN
3300 / 535 --- 20'W CL AS SHOWN

ST. LOUIS COUNTY WATER COMPANY --- 579B / 306 & 308 --- DOES NOT APPLY
UNION ELECTRIC --- 6294 / 1433 --- PLATTED AS SHOWN ON PLAT OF BAXTER LAKES PLAT 4
6298 / 1270 --- 275'W AS SHOWN

SOUTHWESTERN BELL TELEPHONE COMPANY --- 629B / 872 --- DOES NOT APPLY. (to shown)

ST. LOUIS COUNTY --- 6772 / 1651 --- UNPLATABLE WITH INFORMATION PROVIDED

FEE FEE TRUNK/METROPOLITAN ST LOUIS SEWER DISTRICT ---
6786 / 878 --- this is an AGREEMENT and therefore unplatable.
8823 / 175 --- UNPLATABLE - NO EXHIBIT "A" ATTACHED.



REV	DATE	DESCRIPTION	DSGN
1	7-9-97	GENERAL ADDITIONS	MAG

APPROVED FOR CONSTRUCTION
FLUOR DANIEL, INC.
 DATE SEP 24 1997

NOTE: IF DRAWING IS 11" X 17" REFER TO GRAPHIC SCALE
 DRAWN BY: D.W.W.
 CHECKED BY:
 APPROVED BY:
 DATE DRAWN: 5-29-87

ASSOCIATED LAND SURVEYORS INC.
 P.O. BOX 137 HILLSBORO MO. 63050
 PHONE: [314-797-2283]
 FAX: [314-942-4001]

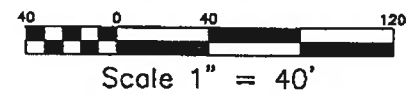


PCS SITE NO.: # 588
 SITE ADDRESS:

TITLE: **CIVIL SURVEY**

FD CONTRACT NO. 21900204
 DRAWING NO. 1 OF 1

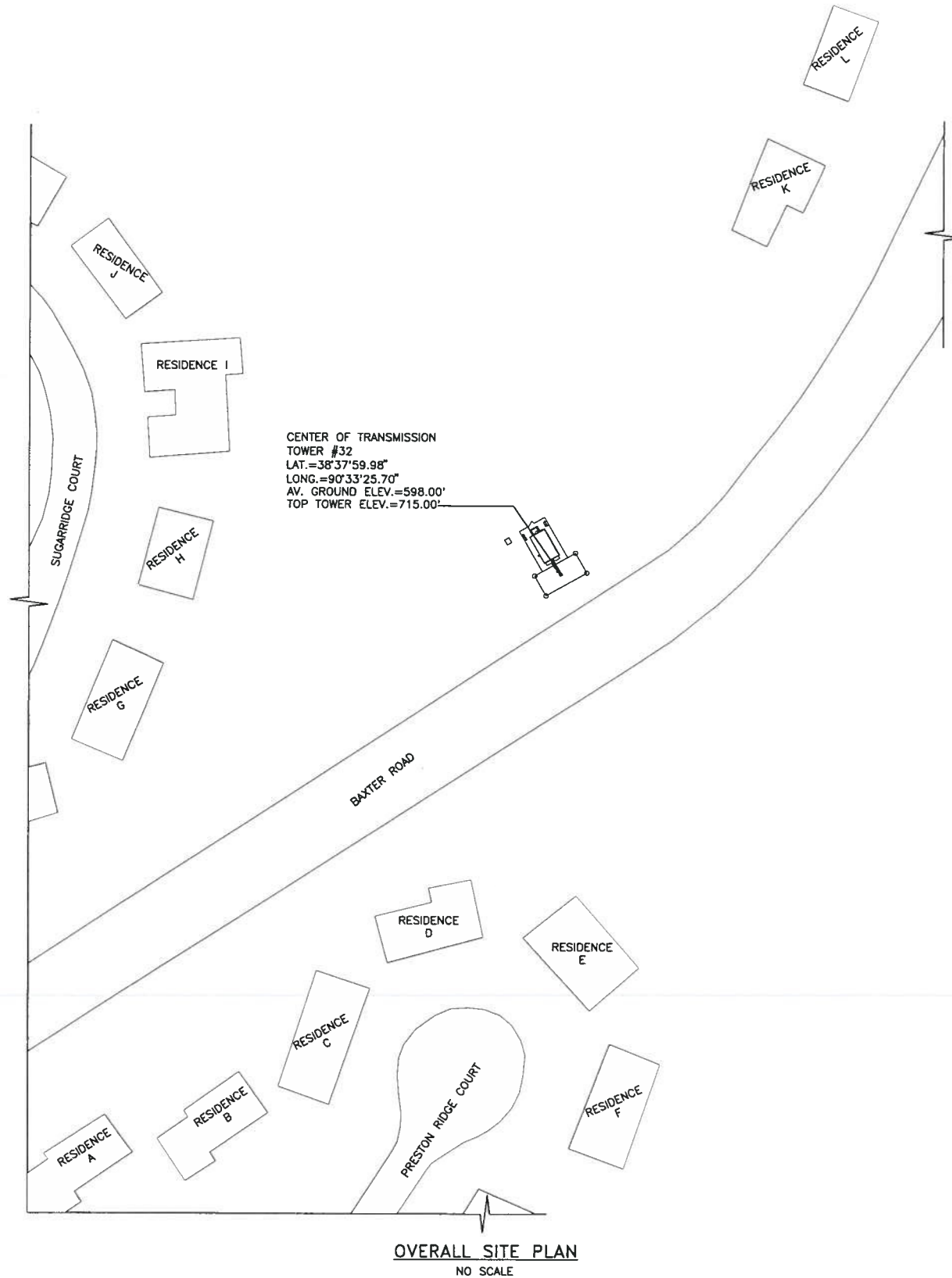
PLOT DATE: 6-3-97
 FILENAME: CHEST.DWG XREF:



SURVEYOR'S CERTIFICATE
 We hereby certify that, at the request of AT&T Wireless, Inc, we have executed a Topographic survey of a tract of land that meets or exceeds the 1-A classification established by the Federal Aviation Administration. Said tract of land being shown as "Union Electric Easement" located within Baxter Lakes Plat Four, a subdivision filed for record in Plat Book 169 at Pages 72-73 of the St. Louis County Land Records, being located in U.S. Survey 1978, Township 45 North, Range 4 East, St. Louis County, Missouri, and the results are shown hereon.
 IN WITNESS WHEREOF, We have hereunto set our hand and affixed my official seal at our office in Hillsboro, Missouri, this 10th day of July, 1997.

ASSOCIATED LAND SURVEYORS, INC.
 WAYNE WILEY R.L.S. 1530
 P.O. BOX 137
 HILLSBORO, MISSOURI 63050
 (314) 797-2283

PARCEL LINES, ZONE LINES AND OTHER SITE FEATURES SHOWN ARE COMPILED FROM EXISTING PLANS AND OTHER DATA. LOCATION OF PARCEL LINES, ZONE LINES AND SITE FEATURES ARE NOT TO BE CONSTRUED AS THE RESULT OF AN ACTUAL FIELD SURVEY AND SUBJECT TO ANY CONDITION THAT A SURVEY MAY REVEAL.



RESIDENCE	DISTANCE FROM CL OF SELF SUPPORT TOWER
A	466'-0"±
B	400'-0"±
C	307'-0"±
D	210'-0"±
E	212'-0"±
F	312'-0"±
G	269'-0"±
H	237'-0"±
I	234'-0"±
J	264'-0"±
K	254'-0"±
L	175'-0"±



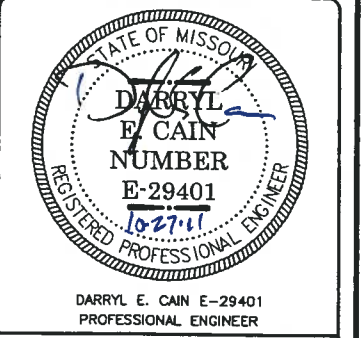
13075 MANCHESTER RD, SUITE 100
 ST LOUIS, MO 63131



10950 GRANDVIEW DRIVE
 OVERLAND PARK, KANSAS 66210
 (913) 458-2000
 BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
 MISSOURI STATE CERTIFICATE OF AUTHORITY # 001848

PROJECT NO:	168986
DRAWN BY:	MAK
CHECKED BY:	GPX

REV	DATE	DESCRIPTION
1	10/27/11	CHANGED SITE ADDRESS
0	08/10/11	ISSUED FOR ZONING



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

MO3520
 UE BAXTER
 (1972 BAXTER ROAD)
 CHESTERFIELD, MO 63017
 LTE - TRANSMISSION TOWER

SHEET TITLE
 OVERALL SITE PLAN

SHEET NUMBER
 Z-2



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131



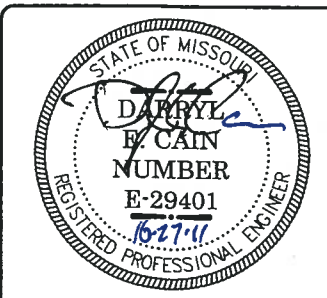
BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001846

PROJECT NO:	168986
DRAWN BY:	MAK
CHECKED BY:	GPX

REV	DATE	DESCRIPTION
1	10/27/11	CHANGED SITE ADDRESS
0	08/10/11	ISSUED FOR ZONING



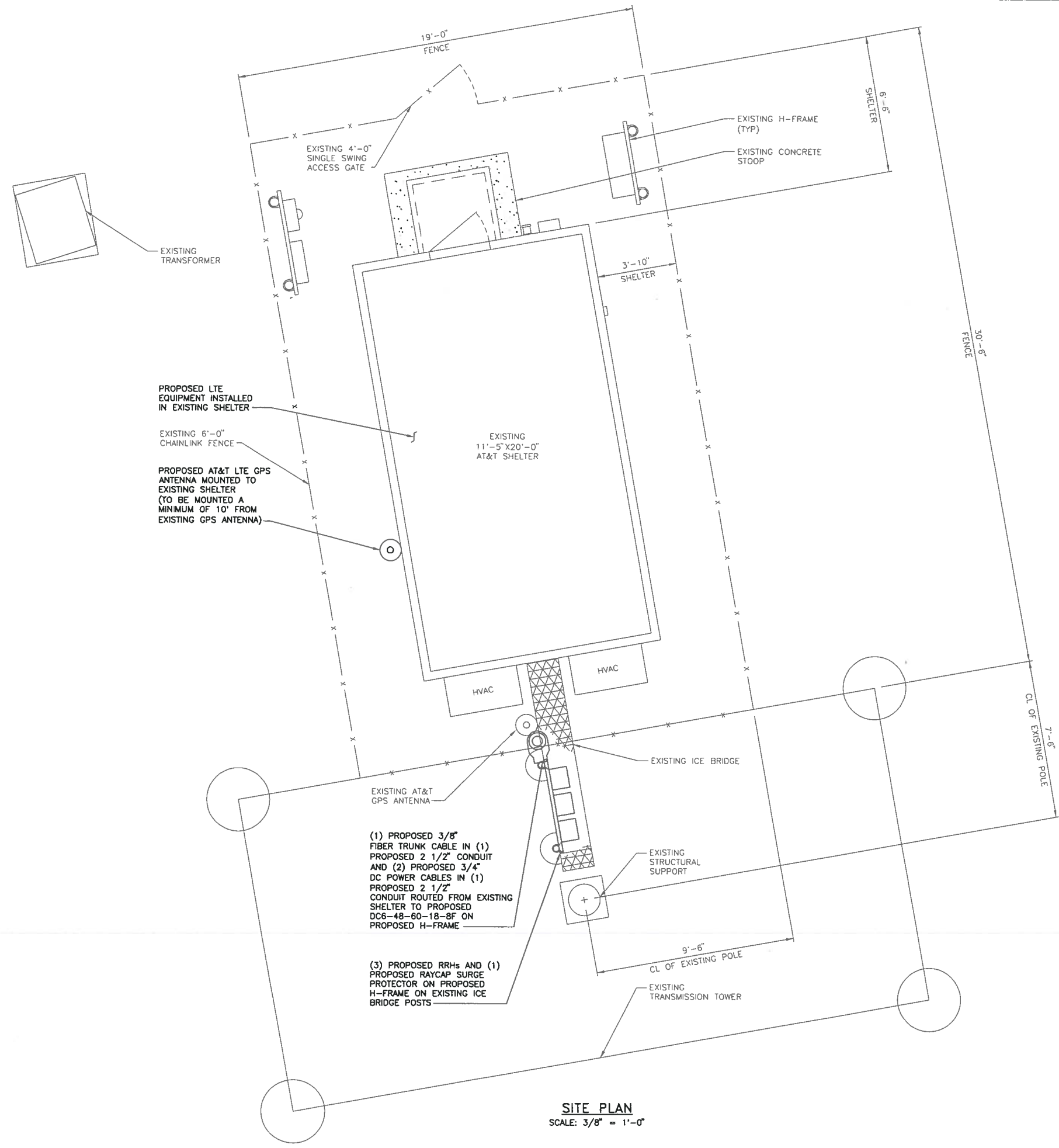
DARRYL E. CAIN E-29401
PROFESSIONAL ENGINEER

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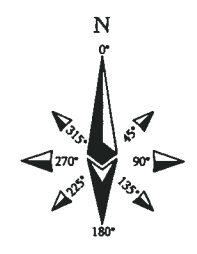
M03520
UE BAXTER
1972 BAXTER ROAD
CHESTERFIELD, MO 63017
LTE - TRANSMISSION TOWER

SHEET TITLE
SITE PLAN

SHEET NUMBER
Z-3



SITE PLAN
SCALE: 3/8" = 1'-0"



LEGEND	
FENCE	— x — x — x —
LEASE AREA	— + — + — + —
ICE BRIDGE	
OVERHEAD POWER	— OHP — OHP — OHP —
UNDERGROUND POWER	— UGP — UGP — UGP —
OVERHEAD UTILITIES	— OHU — OHU — OHU —
UNDERGROUND TELCO	— UGT — UGT — UGT —



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131



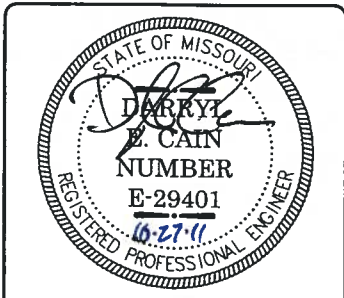
BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001846


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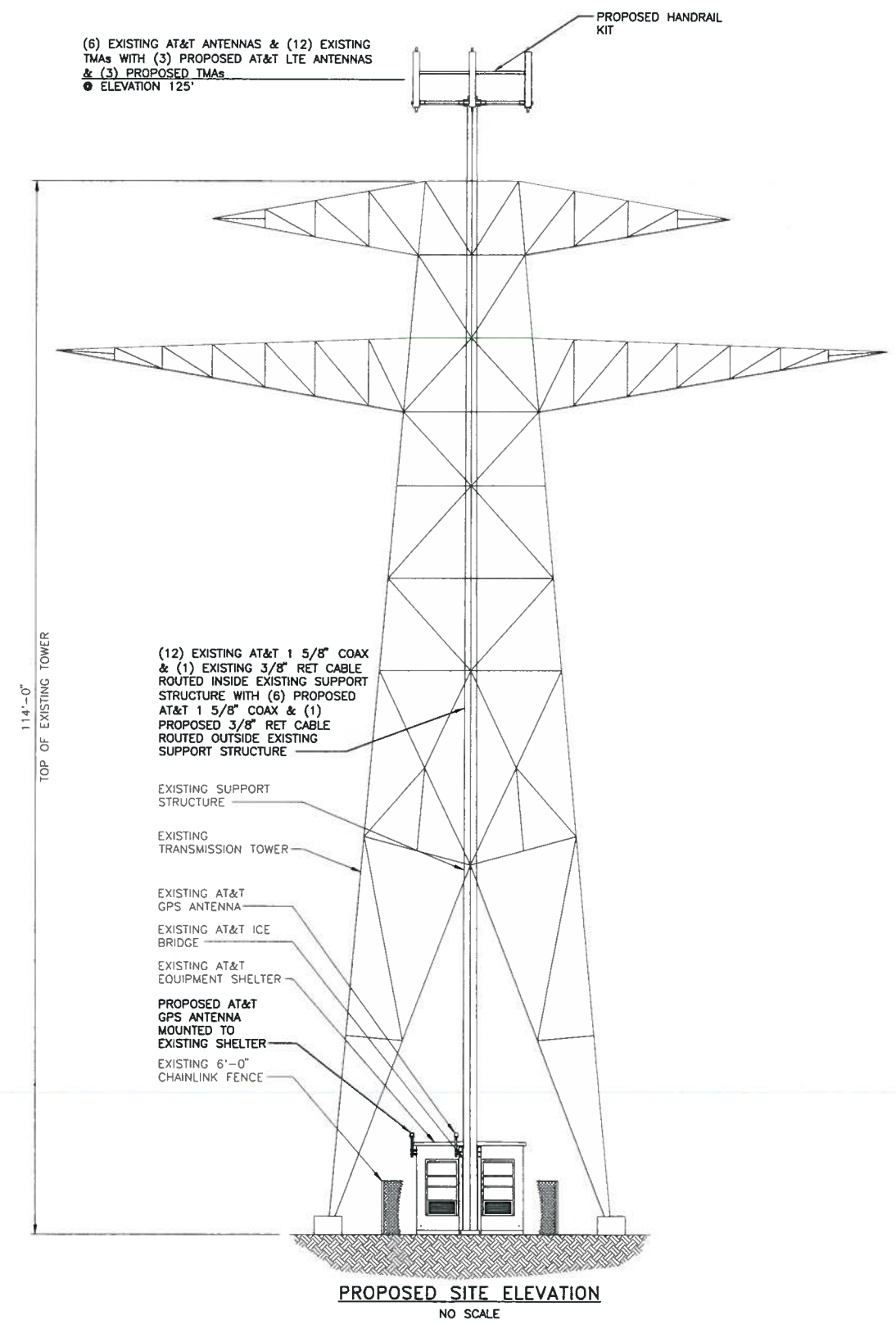
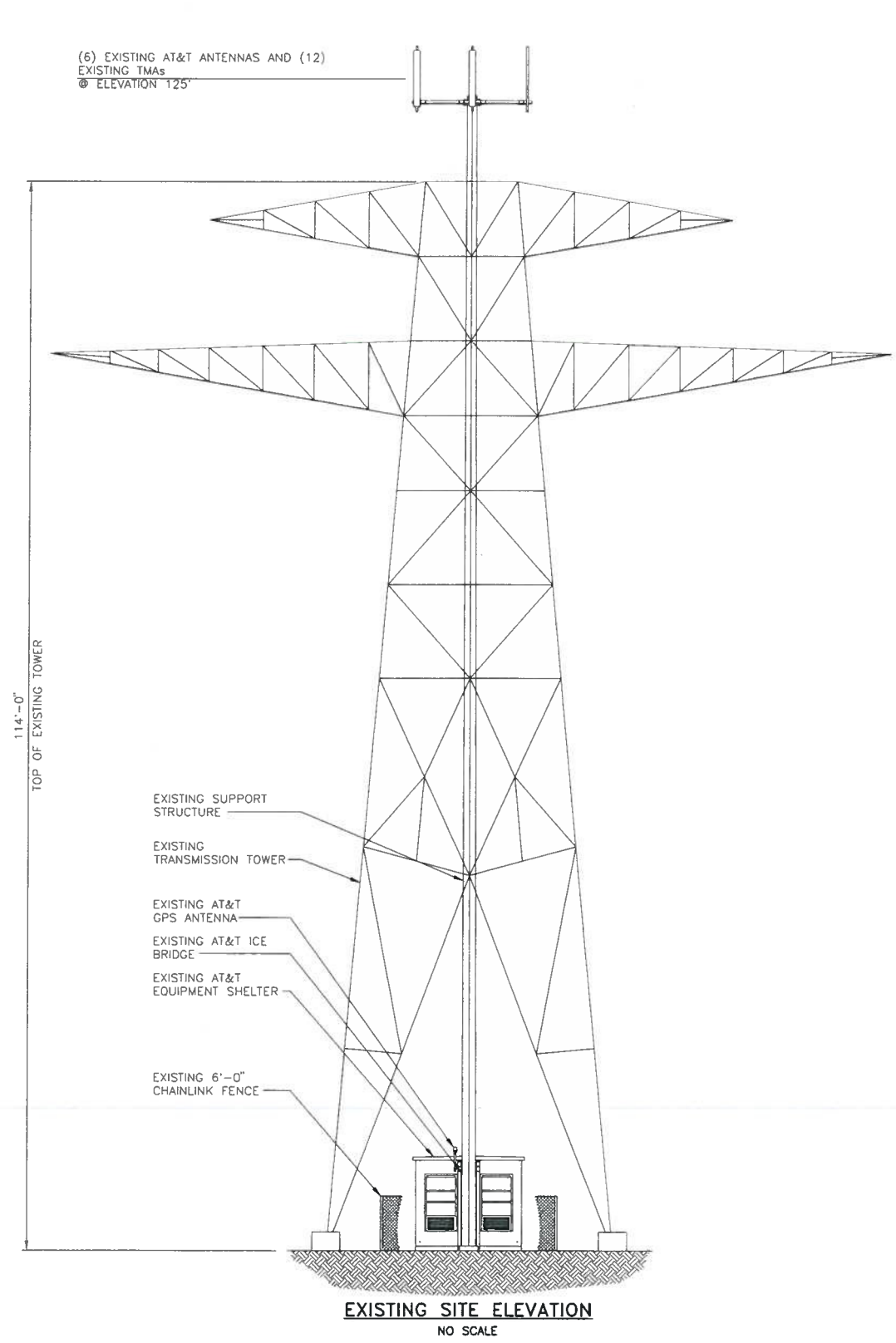
DARRYL E. CAIN E-29401
PROFESSIONAL ENGINEER

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M03520
UE BAXTER 
1972 BAXTER ROAD
CHESTERFIELD, MO 63017
LTE - TRANSMISSION TOWER

SHEET TITLE
SITE ELEVATIONS

SHEET NUMBER
Z-4





August 5, 2011

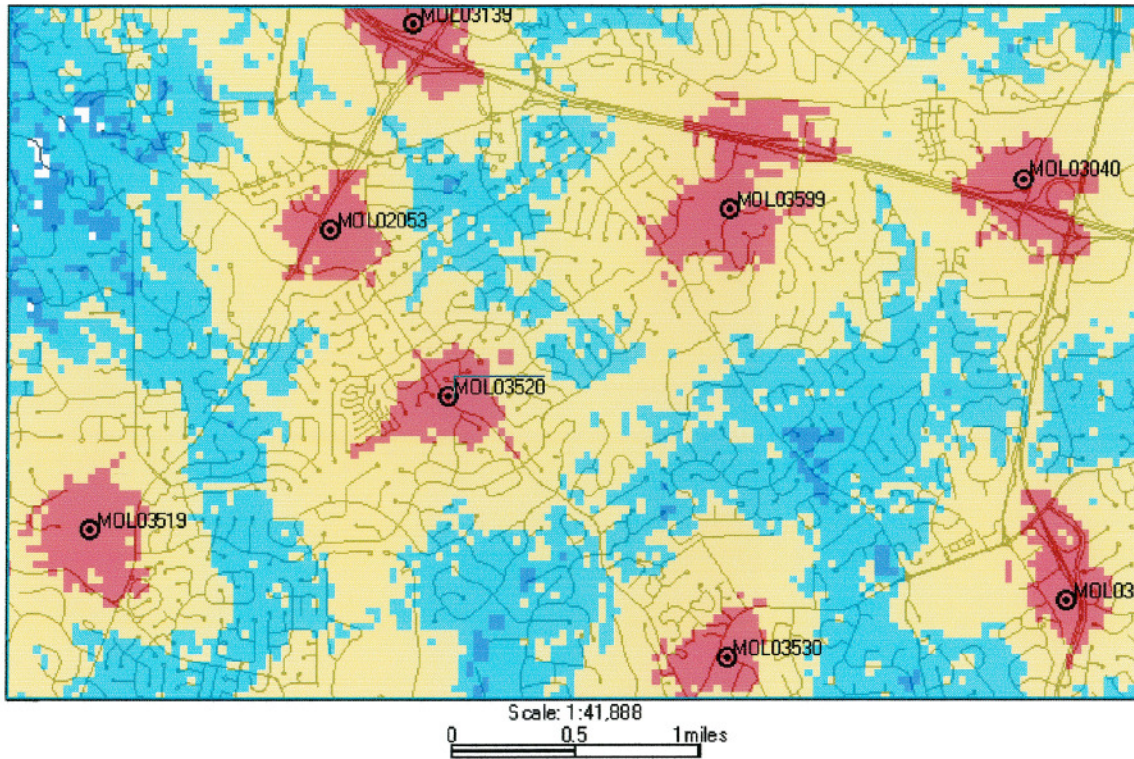
The following is a brief explanation of why AT&T Mobility is proposing to have the current wireless communication facility at 1976 Baxter Road modified. This facility is labeled as MOL03520 on Map 1. Currently this facility is only capable of broadcasting our older technologies.

This facility currently is broadcasting our "2G" technology (called GSM) and our "3G" technology (called UMTS). Each technology uses its own antennas and equipment. The modification we are proposing is to add our "4G" technology (called LTE). Perhaps you have seen all the television commercials from various wireless carriers talking about their 4G systems. 4G, short for 4th generation of wireless technology, allows wireless carriers to provide much faster data speeds than our current networks. 4G is only for data at this point. All voice calls will still be served on older technologies. Currently AT&T still has the fastest data network. Although as other carriers implement and optimize their 4G networks we expect to lose that advantage and eventually fall behind other carriers unless we also launch our 4G network. The proposed modifications will allow us to implement our 4G technology by using additional antennas and equipment.

Because of national E911 requirements, this site needs to run all technologies. The 4G technology is not capable of handling voice calls at this time and all 911 calls made from a wireless device will be routed through our older technologies. These technologies require that we use a total of 3 antennas for each direction covered. This site, like most of our locations, serves three directions creating a need for 9 antennas. This requires us to add 3 additional antennas for this location.

This plan will have no effect on our coverage for current technologies. Map 1 below shows the proposed coverage for our 4G network in the area. AT&T Mobility has acceptable coverage in most of the surrounding area. Because 4G is a data only service the different signal levels don't indicate whether service exists or not. In general on 4G the stronger the signal (to a point) the faster the data rates will be. It is expected that red, yellow and light blue will have data speeds faster than our 3G technology. The dark blue will likely have data speeds nearly identical to the 3G technology.

Map 1 Proposed AT&T "4G" coverage



Ron Humphrey

Radio Frequency Design Engineer
AT&T Mobility Division